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Thesis .

A STUDY OF CHILDREN'S KNOWLEDGE OF CURRENT
POLITICAL AND CIVIC INFORMATION

Submitted by

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INTRODUCTION

Chapter I

Aims In The Teaching of History

"The citizen - voter or not - needs a purposeful civic education if he is to be prepared to meet the responsibility of the modern social organization."¹ Indeed, Dr. Ernest Horn says that "the chief purpose of teaching history in the elementary school is to make pupils more intelligent with respect to the more crucial activities, conditions and problems of present day life."²

The change in the viewpoint in the teaching of history from an emphasis on the past to one on current affairs is recognized in the following statement by Dr. Henry Johnson:

"The demand is for social studies of direct and immediate concern to individual communities. Questions relating to public health, to housing and homes, to good roads, and the like, in the present, are coming to be viewed as of greater importance than questions relating to how people lived in the past. The educational perspective is rapidly changing. It is becoming increasingly clear that children should know something about the duties of the garbage collector and the gas inspector. It is becoming less clear that they should know something about the deeds of Alexander and Charlemagne." ³

¹ Snedden, David. Problems of Educational Readjustment. Boston, Houghton Mifflin Co. 1913 p. 92

² Horn, Ernest. Possible Defects in the Present Content of American History, Sixteenth Yearbook of the National Society for the Study of Education, Part I, Bloomington Ill., Public School Publishing Co. 1917 p. 156

³ Johnson, Henry. Teaching of History. New York, The MacMillan Co. 1928 pp 159-160

REPORT
ON THE

PROGRESS OF THE

WORK OF THE
COMMISSIONERS OF THE
LAND OFFICE
IN THE
YEAR 1881

BY
J. H. B. [Name]
[Title]

LONDON:
[Publisher's Name]
[Address]

In view of the fact that we recognize the worth of an emphasis on current problems, the purpose of this study is to find out if pupils who have had from two to four years of history in the elementary school know much about matters of interest in current life including people and social or economic questions which have been prominent in the news during the past year. Since history courses are a means of supplying the need in America for an interest in and an understanding of civic problems¹ we shall look into the aims of this subject for objectives which serve to promote purposeful civic education.

Our interest in the reconstruction of aims in history teaching may well begin with the appointment of the Committee of Ten of the National Education Association. The report released in 1894 provided for four years of history to be taught in the elementary school and four years in the high school. The third year of history in the elementary school was to be American History and Civil Government.² In stating the purposes for history teaching the following statement was made by the Committee:

"It cannot be too strongly emphasized that facts in history are like digits in arithmetic; they are learned only as a means to an end History and the allied branches are better adapted than any other studies to promote the invaluable mental power which we call judgment; it should train the pupils to throw away the unimportant or unessential and

¹ Rugg, Earle. Curriculum Studies in the Social Sciences and Citizenship. Colorado State Teachers College.
1928 p. 191

² Committee of Ten on Secondary School Studies. Report; New York, 1894 p. 163

to select the paramount and cogent. Through history a child should be taught to exercise those qualities of common sense which he needs for the conduct of his own life." ¹

In their recommendations for the elementary school the Committee of Fifteen of the National Education Association reporting to the Department of Superintendence in 1895, recommended oral lessons in history and biography for sixty minutes a week throughout the elementary course. We also note that this committee set the study of the Constitution as the limit of the content in the eighth grade because the latter epoch seemed not so well fitted for intensive study in school as the already classic period of our history.² This attitude was illustrative of a period more interested in facts concerning the past than in their use and was an echo of earlier European practice.³

In 1899, the Committee of Seven of the American Historical Association in cooperation with the National Education Association set up these as the reasons for teaching history:

1. History helps boys and girls to acquire some knowledge of their environment and helps them to become intelligent citizens.
2. History cultivates the judgment by leading the pupil to see the relation between cause and effect as cause and effect occur in human affairs.

¹ Ibid

² Committee of Fifteen on Elementary Education. Report. New York, 1895. p. 70

³ Johnson, Social Studies . Vol. I.

3. The study of history gives training not only in acquiring facts, but in arranging and systematizing them and in putting forth individual product.
4. The study of history helps the pupil to acquire a knowledge of facts that is to him a source of pleasure and gratification in after life.
5. History fosters the brighter and broader culture which springs from a sympathy with the onward movements of the past, and an intelligent comprehension of the present.
6. Historical study gives pupils training in the handling of books, thereby introducing them to good literature and inspiring them with a love of reading.
7. The latter aim helps to quicken, strengthen, and discipline the pupil's imagination.
8. The ordinary oral recitation in history if properly conducted may help the pupil to express himself in well chosen words. ¹

The only reference to the present is expressed in #5, and here only that appreciation and sympathy for the problem of the present can best be secured by a study of the past.

More particularly concerned with the elementary school than any of the previously mentioned groups was the Committee of Eight of the American Historical Association (1909).² The point of view of this committee was that history teaching should be of such nature as to help the child appreciate what his fellowman is doing and to lead him to intelligent participation either in agreement or disagreement with his fellows.³ To this end they

¹ McLaughlin, A.C. The Study of History in the Schools. Report to the American Historical Association by the Committee of Seven. New York. The MacMillan Co. 1899. pp 20-26

² Johnson, Henry. Op. Cit. p. 154

³ The Study of History in the Schools. Report to the American Historical Association by The Committee of Eight. New York. Charles Scribner's Sons. 1910. p.

recommend attention to contemporary problems of political, industrial, social educational and religious nature. In the course of study outlined by the group two excellent chances are provided for emphasizing current history. The first of these occurs in the first grade where provision is made for stories connected with local events, and again in the fifth grade in the study of great industries of the present.¹

In 1917, Dr. Koos made a study of the materials and methods in American History in which he received replies from 224 teachers in fifteen middle western states.² He lists the following aims from these teachers:

1. To master the text.
2. To cultivate the power of handling facts.
3. To develop the spirit of nationalism.
4. To cultivate reconstructive imagination.
5. To equip the student with a store of historical information.
6. To develop the faculty of discrimination.
7. To promote good citizenship.
8. To develop ability in speech, oral and written.
9. To inspire with a love of reading.
10. To teach the use of books.³

This study also showed that collateral reading included magazines and newspapers, and that government was included by about one half of the courses in American history.⁴

¹Ibid. p.

²Koos, Leonard V. The Administration of Secondary School Units.
³Chicago, Ill. The Chicago Univ. Press. 1917. p. 93

³Ibid. p. 105

²Ibid. pp. 106-107

The first part of the report deals with the general situation of the country. It is a very interesting and informative study of the country's resources and potential. The author has done a great deal of research and has put together a very comprehensive picture of the country's situation.

The second part of the report deals with the specific details of the country's resources and potential. It is a very detailed and thorough study of the country's resources and potential. The author has done a great deal of research and has put together a very comprehensive picture of the country's situation.

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Another of the studies published in 1917, was that of Dr. Bagley in which he attempted to determine the names and topics common to twenty-three elementary history textbooks to find what material is thought to represent minimal essentials.¹ He found more space devoted to the period from 1812 to 1861 than to any other. The second highest per cent was given to the period of colonial development. The period from 1865 to the date of publication of the books stood third.² What Dr. Bagley finally urges is that the desirable outcomes of teaching be agreed upon so that such problems as the relation of contemporary problems to the history course may be settled in the light of what we are striving toward.³

Included in the same volume is a report of a study by Dr. Ernest Horn in which he made a study of modern textbooks in comparison with books on modern problems and the International Encyclopedia. It was discovered that fewer than ten per cent of the names which occur most frequently in the textbooks are among the first 261 names taken from the books and Encyclopedia articles.⁴

¹ Bagley, W.C. Present-Day Minimal Essentials in United States History as Taught in the Seventh and Eighth Grades. Sixteenth Yearbook of the N.S.S.E. Part I. 1917. Bloomington,

² Ibid. p. 145

³ Ibid. p. 144

³ Ibid. p. 154

⁴ Horn, Ernest. Op. Cit. p. 156

and the way in which the various members of the family
are connected with each other and with the world at large
is a subject of great interest and importance. It is a subject
which has been treated in many different ways, and which
has given rise to many different theories and opinions.
The first of these is the theory of the family as a unit,
in which the members of the family are considered as
being connected together in a single, indivisible whole.
This theory is based on the idea that the family is a
natural and necessary institution, and that it is the
basis of all other social institutions. It is a theory
which has been widely accepted, and which has given
rise to many different theories and opinions. The second
theory is the theory of the family as a collection of
individuals, in which the members of the family are
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He also found that the amount of space given to the discussion of political, military and social and economic phases in textbooks showed an unfavorable balance in comparison with standards set up by the Committee of Eight.¹ and the books on modern problems and the Encyclopedia articles.² The following table illustrates the comparison:

Distribution of References to Three
Phases of History (in Per Cents) ³

	Political	Military	Social and Economic
Committee of Eight	33	30	37
Modern History Text Books	42	40	18
Books on Modern Problems	18.7	4.7	78
Encyclopedia Articles	37	1.7	60

The reaction occasioned by the World War was making itself felt at that time.

Following Harris' study, Bassett tried to find what information is necessary to understand modern political problems, conditions, and activities.⁴ His method was similar to Horn's in that he examined books dealing with political problems to determine how much historical information is necessary to understand them. He found that besides the names of presidents the

¹ Report. Op. Cit. pp XXii, 141

² Horn. Op. Cit. p. 169

³ Ibid. p. 169

⁴ Bassett, B. B. The Historical Information Essential for the Intelligent Understanding of Civic Problems. Seventeenth Yearbook of the National Society for the Study of Education. Bloomington, Ill. Public School Publishing Co. 1918. p. 81

names of economists were most important and that the dates most frequently mentioned were those since 1890. He also found a definite need for knowledge of the Federal Constitution.¹

A committee of the American Historical Association headed by A. C. Krey recommended to that body in 1926, that, in view of such changes in the school situation as more maturity on the part of school children, reorganization of school systems to facilitate administration, and the increase in school attendance, a detailed study be made extending over a period of at least five years which would determine such questions as the advisability of fusion courses, topical or chronological organization, procedure from simple to complex or from present to remote; continuous progress or cyclical treatment, time allotments, variety courses for different types of schools and variations in teaching procedure.²

Earle Rugg made an analysis of textbooks and found that facts are taught but that many of these have no reference to social utility.³ He set up the following aims:

1. Facts, acquisition of knowledge.
2. General phase, citizenship training.
3. Method of studying.
4. Training certain powers such as memory and judgment.
5. Inculcation of patriotism and nationalism.
6. Broadening the pupil's point of view.
7. Training in seeing causal relationships.
8. Miscellaneous (development of critical attitudes, appreciations, scientific habits of thought, ability in speech, oral and written).¹

¹ Ibid. pp. 88-89

² Krey, A. C. History and Other Social Studies in the Schools. Report of a committee to the American Historical Association. Historical Outlook, Jan. 1927. p. 118

³ Rugg, Earle. Op. Cit. p. 30

¹ Rugg, Earle. Evaluating the Aims and Outcomes of History. Historical Outlook, Nov. 1923, pp 324-26

These are indicative of a trend away from mere textbook teaching toward the acquiring of an ability to solve problems which should be of importance to the pupil.¹

In 1927, an extensive revision of the Social Studies Curriculum of the Terre Haute, Indiana, schools was reported by E. B. Clogston. of interest to us is aim C of the whole social science field which is "To develop in the pupil a consciousness of his membership in a world community; and #4 of the aims in American History, "To evaluate American History from the viewpoint of world development and give appreciation of the new perspective resulting from the World War."²

The next study of particular interest to us deals not in any remote way, but very directly with the teaching of current events in the elementary school. From this teaching experiment by Mary Kelty and Nelle Moore it was concluded that (1) children would become interested in current events which deal with political, social, economic and geographical phases of world news; (2) the ability to read the material affects the interest in papers outside of class work; (3) children allow illustrations to influence their choice; (4) they also recommended a 30 minute class period once a week as sufficient.³

¹Rugg, Harold O. Problems of Contemporary Life as the Basis for Curriculum-Making in the Social Studies. Twenty-Second Year-book of the National Society for the Study of Education. Part II. Bloomington, Ill. Public School Publishing Co. 1923 p. 260

²Clogston, E. B. A Case for Setting Up Aims for the Social Studies.

³Kelty, Mary G.; Moore, Nelle E. An Experimental Study of the Teaching of Current Events in the Middle Grades. Elementary School Journal, Vol. 32 (Feb. 1932) pp 417-425

As a result of the recommendation of the committee headed by A. C. Krey already mentioned¹ there was appointed a Commission on the Social Studies. The portion of the report dealing with the curriculum was prepared by Leon Marshall. In spite of the fact that so many of the studies had emphasized the need for emphasis on present-day problems the viewpoint taken in this volume is largely academic. His recommendation² was that the approach in the curriculum be one of social process based on what he believed to be the three constants in every place and every culture:

1. Man has relatively stable biological capacities.
2. Man has always been forced to deal with his environment which will not, unaided or undisciplined, satisfy his desires.
3. Man always lives in some type of group.

With this idea of constants as a basis he recommended that the social sciences should be an "overview" of the whole field utilizing the social approach method and fusion courses. But in its development of the curriculum this volume failed to emphasize the new viewpoint and instead tended toward the factual. In the end it proved to be definitely conservative, possibly reactionary.

On looking back over the many studies and the different lists of aims we might summarize including most of those in line with our present trends in history teaching under two main objectives:

¹pp 7-8

²Marshall, Leon: Goetz, Rachel Marshall. Curriculum-Making in the Social Studies, Part XIII. Report of the Commission on the Social Studies. American Historical Association. New York. Chas. Scribner's Sons. 1936. p. 13

1. To develop an intelligent interpretation of the present and the ability to solve present problems.
2. To inculcate a spirit of patriotism sufficient to tide us through emergencies. ¹

¹

Wilson, Guy M.; Hoke, Kremer J. How to Measure. New York.
The MacMillan Company. 1929. p. 244

THE UNIVERSITY OF CHICAGO

DEPARTMENT OF CHEMISTRY

LABORATORY OF ORGANIC CHEMISTRY

CHICAGO, ILLINOIS

1955

RESEARCH REPORT

NO. 1

BY

ROBERT H. WOODWARD

AND

ROBERT B. WOODWARD

CHICAGO, ILLINOIS

1955

RESEARCH REPORT

NO. 2

BY

ROBERT H. WOODWARD

AND

ROBERT B. WOODWARD

CHICAGO, ILLINOIS

1955

TESTING IN THE FIELD OF HISTORY

Whenever we wish to see how well we are achieving our aims in any subject field we turn to measurements in that field for the answer to the question. The major criteria in testing are

1. The test should be in harmony with and should reinforce the right curricula principles.
2. A test should encourage, supplement, and reinforce proper methods of teaching.
3. A test should serve the true purposes of an examination.
 - (a) A good examination is the best teaching that can be done at the time.
 - (b) A good examination provides for a new view,¹ reorganization or a worthwhile application.¹

The civic efficiency aim in history which we have accepted² suggests that the method will be one of problem and appreciation. With this in mind we face the fact that the job of testing in history is very different from that of testing in a tool subject. Studies of the early tests in the field indicate the difficulty.

In 1917, Bell and McCollum reported a study made of students in Texas in which they discussed aims that had to do with civic efficiency and discounted them, basing their test entirely on history ability as indicated by the readiness with which pupils answer informational questions. They found out differences in individuals, schools, and sex groups so far as information was concerned. Scores were relatively low.³

Earle U. Rugg made a study of the eleven tests in existence in 1919. He found that most of these tests measured only in-

¹Ibid pp 515-16

²See p. 10

³Bell, J. Carleton; McCollum, D. F. A Study of the Attainment of Pupils in United States History. Journal of Educational Psychology, Vol. VIII May 1917 p. 258

⁴Rugg, Earle U. Character and Value of Standardized Tests in History. The School Review, Vol. 27 Dec. 1919

formation as an indication of historical ability. The tests of Buckingham, Van Wagenan, Barr, and his own included the use of thought, reasoning, historical inference, and judgment.¹

His main criticisms of the tests follow:

1. The dominant aim should not be to memorize factual content as these tests so much emphasize.
2. Tests do not embrace content vital to the course of study. "Progressive teachers are agreed that the present must be stressed to a higher degree than in the past."
3. A majority of the exercises do not test the basic aims or outcomes of history.
4. They attempt to cover too long a period in history.
5. They are brief in content so if they are known by the teacher the content is likely to be emphasized day by day.
6. The organization in some of the tests is poor, especially in completion questions.
7. There is still difficulty in scoring questions which are not factual. ²

The chief values of the tests were their value in checking the aims and outcomes and their service in improving instruction through their diagnostic qualities. He suggested that tests in history would be of more value when they "include content which is of proved social worth to the child."

This study was followed by another in 1923, in which the author attempted to show how history as we teach it serves the purpose of citizenship training. He found that the principal measure being used was the essay examination. There was no attempt being made in these examinations to weight the importance of questions. He suggested that further study be done so that a teacher could

¹Ibid. p. 7

²Ibid. p. 767

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definitely measure a pupil's gain in the qualities suggested by the aims over a given period rather than his factual knowledge.¹

In the same year Richard Shryock called attention to the fact that with the change in the aims of the subject there should be a change in the emphasis in the tests in order to measure the newer aims.² For instance, if history is to promote patriotism he thought history tests should measure that aim. In the place of the usual written or oral tests he suggested that courses in Current Events or Modern Problems be given in which the reactions of the pupils would be observed for the purpose of seeing how well the aims were being achieved. He did not claim for this method the ultimate solution of the problem in history testing but offered it for experiment.³

Paul Kepner made a survey of 22 tests in 1923, and his criticism was in harmony with that of Rugg in that he also found that most of these tested only one ability---that of information. The makers of the tests fail to define the aims which they are testing so the tests cannot re-inforce worthwhile aims. He thinks they are of value, however, for teacher diagnosis and because they are more easily and accurately scored.⁴

Bertha Elston made a study in the same year dealing with the

¹ Evaluating the Aims and Outcomes of History. Historical Outlook, Vol. 14 (Nov. 1923) pp 324-46

² Shryock, Richard H. New Tests for Old. Historical Outlook, Vol. 14 (Nov. 1932) p. 319

³ Ibid. p. 323

⁴ Kepner, Paul Tyler. A Survey of the Test Movement in History. Journal of Educational Research, Vol. 7 (April 1923) pp 309-325

The first part of the paper is devoted to a general discussion of the problem of the existence of solutions of the system of equations (1) for arbitrary values of the parameters α and β . It is shown that the system has solutions for all values of the parameters α and β if and only if the condition $\alpha + \beta > 0$ is satisfied. In the case when $\alpha + \beta > 0$, the solutions of the system are unique and can be found by the method of successive approximations. In the case when $\alpha + \beta < 0$, the system has no solutions. The second part of the paper is devoted to a detailed study of the properties of the solutions of the system for arbitrary values of the parameters α and β . It is shown that the solutions of the system are continuous functions of the parameters α and β and that they depend monotonically on the parameters α and β . The third part of the paper is devoted to a study of the asymptotic properties of the solutions of the system for large values of the parameters α and β . It is shown that the solutions of the system approach zero as the parameters α and β approach infinity.

The author wishes to express his sincere thanks to the members of the Institute of Mathematics of the Academy of Sciences of the USSR for their interest in the work and for the facilities provided for the research.

high school level and urged experimentation on the part of teachers in building tests suitable for their own classes, testing the specific abilities they are endeavoring to achieve, using as much as possible objective forms.¹

In 1926, W. J. Osburn made a study of history testing to determine how well history was being taught.² He found that in spite of all that had been done by committees in an attempt to devise aims of social utility, teachers were still teaching facts if their tests were any indication. He found in his study of test questions in American History on the elementary level that there were no questions dealing with the nature of historical evidence and weighing it, no questions which attempted to bring about sympathy and understanding among peoples and nations; only 8 questions attempted to interpret the present and judge the future in terms of the past. On the other hand he found 15,290 that served to discipline the memory, and 6,043 that attempted to teach the power of organizing facts.³ In reference to the kind of thinking required to answer history questions he found that 75% of the questions called for organizing; 13% for analysis and judgment; and none for the cause-effect type of thinking.⁴

In the 1929 revision of How to Measure, Wilson and Hoke, after

¹Elston, Bertha, Improving the Teaching of History in the High School Through the Use of Tests. Historical Outlook,

² Vol. 14 (Nov. 1923) pp 300-305

Osburn, W.J. Are We Making Good At Teaching History? Bloomington, Ill. Public School Publishing Co. 1926 p.

³Ibid. p.

⁴Ibid. p. 61

The first of these is the fact that the
 system is not a simple one. It is a
 system of many parts, each of which
 has its own function, and the whole
 system is designed to work together
 to produce a result. The second of
 these is the fact that the system is
 not a static one. It is a dynamic
 system, and it is constantly changing
 and evolving. The third of these is
 the fact that the system is not a
 closed one. It is an open system,
 and it is constantly interacting with
 the environment. The fourth of these
 is the fact that the system is not a
 simple one. It is a complex one,
 and it is constantly changing and
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 one. It is an open system, and it
 is constantly interacting with the
 environment. The tenth of these is
 the fact that the system is not a
 simple one. It is a complex one,
 and it is constantly changing and
 evolving.

The first of these is the fact that the
 system is not a simple one. It is a
 system of many parts, each of which
 has its own function, and the whole
 system is designed to work together
 to produce a result. The second of
 these is the fact that the system is
 not a static one. It is a dynamic
 system, and it is constantly changing
 and evolving. The third of these is
 the fact that the system is not a
 closed one. It is an open system,
 and it is constantly interacting with
 the environment. The fourth of these
 is the fact that the system is not a
 simple one. It is a complex one,
 and it is constantly changing and
 evolving. The fifth of these is the
 fact that the system is not a closed
 one. It is an open system, and it
 is constantly interacting with the
 environment. The sixth of these is
 the fact that the system is not a
 simple one. It is a complex one,
 and it is constantly changing and
 evolving. The seventh of these is
 the fact that the system is not a
 closed one. It is an open system,
 and it is constantly interacting with
 the environment. The eighth of these
 is the fact that the system is not a
 simple one. It is a complex one,
 and it is constantly changing and
 evolving. The ninth of these is the
 fact that the system is not a closed
 one. It is an open system, and it
 is constantly interacting with the
 environment. The tenth of these is
 the fact that the system is not a
 simple one. It is a complex one,
 and it is constantly changing and
 evolving.

a consideration of the tests in history and the studies that have been made express a belief that while existing tests have not been wholly satisfactory, they do point the way toward a form of testing which will more nearly reinforce the aims of history and thus look forward to something entirely different in the testing field.¹ They advise that teachers keep in mind the larger aims and think in terms of a large problem, preferably a present-day one, as the unit of study. In the meantime history tests may be used for research but not for testing since they emphasize drill and therefore their use would not further the purpose of the subject.²

Helen Roetzer in 1932, saw the need of test makers coming to some agreement as to the purpose of history.³ She found that while curriculum makers have revolted against cyclopedic knowledge the test makers have showed opposition or nullification of the revolt by a testing procedure which stresses just what the curriculum makers oppose. They continue to construct tests which employ drill technique in a problem subject.⁴ The essay question was found to be of greater advantage because in calling for reasoning, judgment and organization it better fulfilled the major criteria for a good test than did the standardized test or the new type examination. The values that the testing movement have brought to history lie in calling attention to the basic principles of the subject and showing the need for improvement in the teaching of history.

¹Wilson and Hoke. Op. Cit. p. 272

²Ibid. pp. 273-74

³Roetzer, Helen. An Evaluation of the Testing Procedures Used in Teaching American History. Master's Thesis, Boston University Graduate School, 1932, p. 133

⁴Ibid. pp. 133-34

Chapter II

The Problem Of This Study

The problem for the present study grows directly out of the background of curricular aims in history on the one hand, and correct principles of testing in history on the other. If one of the major aims in the teaching of history is a keen interest in current problems of political, civic, and economic nature, together with their backgrounds and significance, then it is pertinent to try to discover what the schools have done to lead pupils into such lines of work and the reasonable results of such efforts. Furthermore, it is evident that the tests used to discover the realization of this objective must be tests that are currently constructed and that relate to current problems.

The test used in the present study was constructed for use in a school survey at Keene, N. H.¹ A copy of the test is shown on page 67, following, and in the appendix, page 133. In order to get a cross-section of the results in city and rural schools north and south, it was applied by the author in the following places:

Morris School, Sumter, S. C.²
 Washington School, Raleigh, N. C.³
 Berry O'Kelly School, Method, N. C.⁴
 North School, Bellingham, Mass.⁵
 Walpole School, Walpole, Mass.

¹Author: Dr. Guy M. Wilson

The author acknowledges with grateful appreciation the assistance rendered by the following teachers in helping with administration of the tests:

²Mrs. Evelyn P. Campbell

³Miss L. Maywood Latham

⁴Mr. E. A. Johnson

⁵Miss Marguerite Dubois

1. 1000

1000 1000 1000 1000 1000

The first part of the paper is devoted to a general discussion of the problem. It is shown that the problem is equivalent to a problem in the theory of differential equations. The second part of the paper is devoted to a detailed study of the problem. It is shown that the problem is equivalent to a problem in the theory of differential equations.

The third part of the paper is devoted to a detailed study of the problem. It is shown that the problem is equivalent to a problem in the theory of differential equations. The fourth part of the paper is devoted to a detailed study of the problem. It is shown that the problem is equivalent to a problem in the theory of differential equations.

The fifth part of the paper is devoted to a detailed study of the problem. It is shown that the problem is equivalent to a problem in the theory of differential equations. The sixth part of the paper is devoted to a detailed study of the problem. It is shown that the problem is equivalent to a problem in the theory of differential equations.

2. 1000 1000 1000 1000 1000
3. 1000 1000 1000 1000 1000
4. 1000 1000 1000 1000 1000
5. 1000 1000 1000 1000 1000
6. 1000 1000 1000 1000 1000

7. 1000 1000 1000 1000 1000

8. 1000 1000 1000 1000 1000

9. 1000 1000 1000 1000 1000
10. 1000 1000 1000 1000 1000
11. 1000 1000 1000 1000 1000
12. 1000 1000 1000 1000 1000

The immediate task of the writer has been that of directing the administering of the tests, grading, summarizing, and interpreting the results of this testing program. How fully are the schools realizing the aim of problem thinking in terms of present civic needs? How do schools differ? Is it possible to teach for this objective, and in turn is it possible to devise a test which will reveal differences in teaching efficiency? These are some questions which this study should at least partly answer.

The tables which follow summarize the results of testing in grades six, seven, and eight in Keene, New Hampshire, and in the schools indicated in the second paragraph above.

CHAPTER III

Analysis of Test Results

The results of the tests are shown in Tables I-XV. The pupils are designated by the figures in the first vertical column. The columns numbered horizontally from 1 to 25 designate the questions as they appeared in the original questionnaire, thus reading across the page we may see the result of each pupil's performance on each question. The three columns on the left summarize the results of questions answered correctly, incorrectly answered, or omitted. The totals shown at the bottom of the page show summaries on each question. Thus in Table I we see that Pupil #10 answered correctly questions 1, 10, 14, 15, 19, and 25 making a total of six correct answers; no questions were incorrectly answered by Pupil # 10 so the number wrong is 0, while 19 questions were omitted. Since all the pupils in this class of 22 answered question #1 the total for the vertical column denoting question #1 is 22, while the total for the column denoting the second question is 0 since no pupil answered this question correctly.

TABLE I
SPREAD OF CORRECT ANSWERS FOR EACH OF 22 PUPILS
ROOSEVELT SCHOOL, KEENE, N. H.

Grade 6

Pupils	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	No. right	No. wrong	No. not complete	
(1)	1																									1	2	22	
(2)	1																									1	5	19	
(3)	1																									1	6	18	
(4)	1											1														3	5	17	
(5)	1															1										2	8	15	
(6)	1																				1					2	0	23	
(7)	1																									1	7	17	
(8)	1													1												3	2	20	
(9)	1																												
(10)	1									1									1							1	0	24	
(11)	1													1						1						6	0	19	
(12)	1											1														3	7	15	
(13)	1													1												2	2	21	
(14)	1																									1	5	19	
(15)	1											1														2	0	23	
(16)	1															1										2	0	23	
(17)	1																									1	1	23	
(18)	1																									1	0	24	
(19)	1																									1	5	19	
(20)	1																					1				2	2	21	
												1					1									4	2	19	

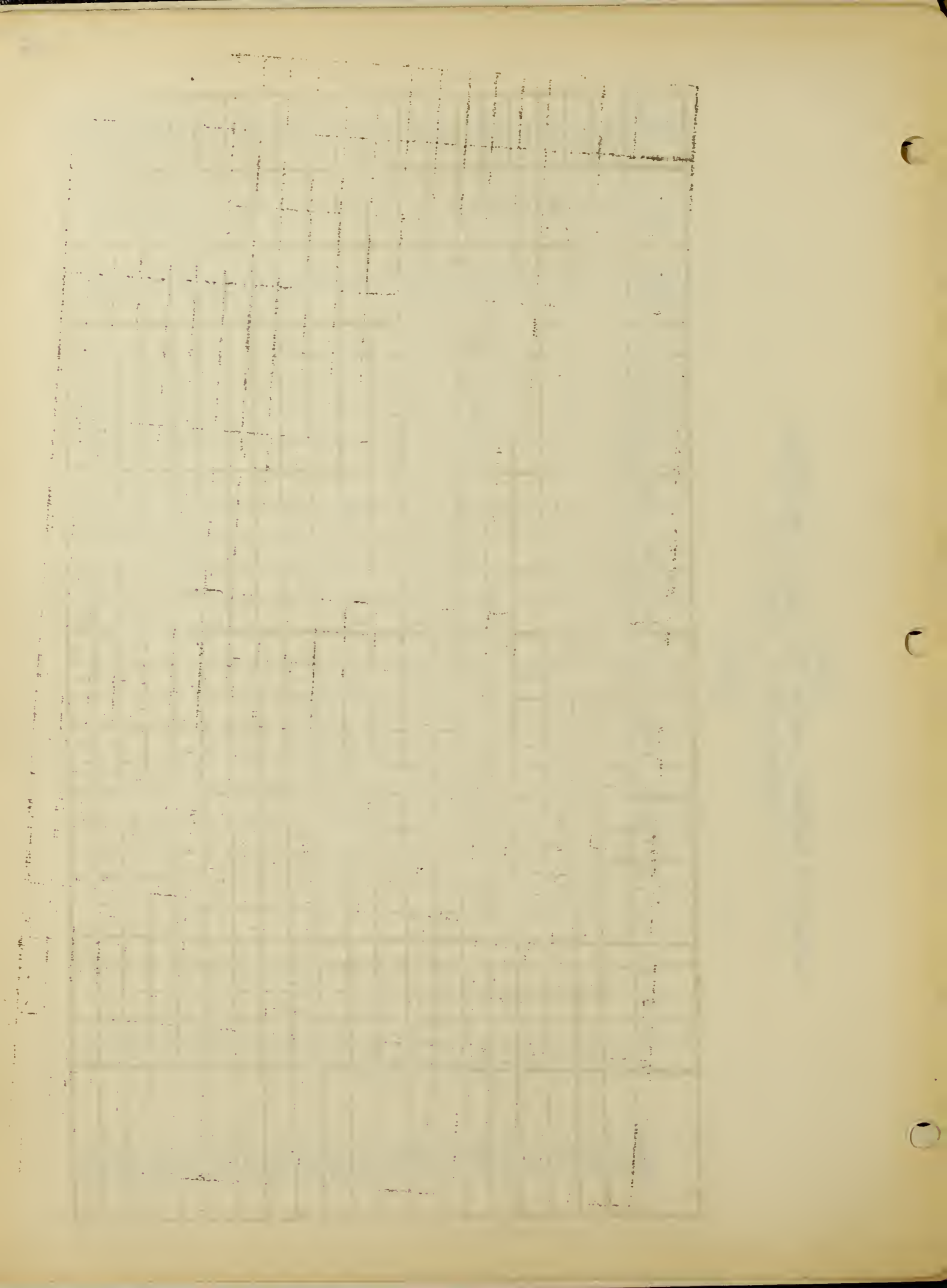


TABLE I (Continued)

Pupils	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	No. right	No. wrong	No. not complete
(21)	1												1			1										3	2	20
(22)	1																								1	2	3	20
TOTALS	22	0	0	0	0	0	0	0	1	0	4	0	7	0	6	0	0	1	0	0	2	0	0	2	45	64	441	

SUMMARY

The total number of students in this class was 22.

The group answered 45 questions or 8% correctly. The median number of questions correctly answered was 2, while the mean was 2.05. The number answered correctly ranged from 1 to 6 per pupil. The probable error was ± 1.98 .

The group answered 64 questions (12%) incorrectly. The median number of questions incorrectly answered was 2, while the mean was 2.91. The number of questions incorrectly answered ranged from 0 to 8 per pupil. The probable error was ± 1.15 .

The group omitted 441 questions or 80%. The median number of questions omitted was 20 while the average per pupil was 20.04. The number of questions omitted ranged from 15 to 24 per pupil. The probable error was ± 1.72 .

The probable error in this and all other tables was computed according to the following formula from Holzinger's "Statistical Methods for Students of Education", Equation 102, p. 243, 1928 edition:

$$P. E. = \frac{fp}{N} = \frac{.6745 \sqrt{fp(100 - fp)}}{N}$$

Errors in these computations are due to the use of rounded numbers in dealing with decimals and to the limits of the sampling.

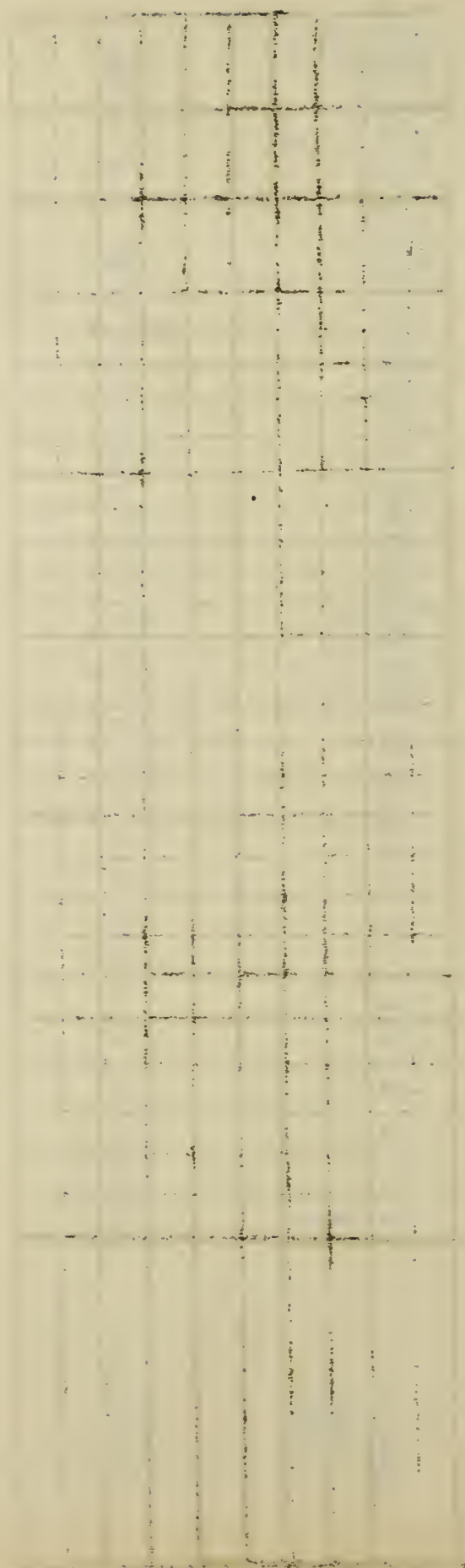


TABLE II

SPREAD OF CORRECT ANSWERS FOR EACH OF 34 PUPILS

FRANKLIN SCHOOL, KEENE, N. H.

Grade 6

Pupils	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	No. right	No. wrong	No. not complete
(1)	1																									1	5	19
(2)													1													1	3	21
(3)	1																									1	4	20
(4)	1																									1	1	23
(5)								1					1													2	5	18
(6)	1												1												1	1	21	
(7)	1																									1	3	21
(8)	1																									1	5	19
(9)	1													1												3	1	21
(10)	1									1			1	1		1									1	6	1	18
(11)																										0	2	23
(12)	1											1	1													3	1	21
(13)	1											1	1													3	4	18
(14)	1																									1	3	21
(15)	1																									1	10	14
(16)	1																									2	1	22
(17)																									1	3	21	
(18)	1											1	1													3	5	17
(19)	1													1												2	5	18
(20)	1											1													1	3 $\frac{1}{2}$	1	20 $\frac{1}{2}$

In #3 one senator was named

TABLE II (Continued)

Pupils	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	No. right	No. wrong	No not complete	
(21)	1																									1	2	22	
(22)	1																									1	9	15	
(23)	1															1										2	0	23	
(24)																										1	6	18	
(25)	1													1		1										3	1	21	
(26)	1																									1	2	22	
(27)	1		$\frac{1}{2}$											1												$2\frac{1}{2}$	2	$20\frac{1}{2}$	
(28)	1													1												2	1	22	
(29)	1		$\frac{1}{2}$						1	1																1	7	$12\frac{1}{2}$	
(30)	1																									1	2	22	
(31)	1		$\frac{1}{2}$											1		1										1	4 $\frac{1}{2}$	1	$19\frac{1}{2}$
(32)	1															1									1	3	2	20	
(33)	1											1		1												3	5	17	
(34)	1													1												2	1	22	
											</																		

TABLE III
SPREAD OF CORRECT ANSWERS FOR EACH OF 26 PUPILS

SYMONDS SCHOOL, KEENE, N. H.

Grade 8

Pupils	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	No. right	No. wrong	No. not complete
(1)	1	1	$\frac{1}{2}$					1					1			1				1					1	7 $\frac{1}{2}$	6 $\frac{1}{2}$	11
(2)	1	1	$\frac{1}{2}$			1			1									1	1						1	7 $\frac{1}{2}$	1 $\frac{1}{2}$	16
(3)	1															1										2	5	18
(4)	1	1														1										3	4	18
(5)	1												1											1		3	5	17
(6)	1																									1	7	17
(7)	1	1																								2	3	20
(8)	1	1	$\frac{1}{2}$						1							1									1	5 $\frac{1}{2}$	6 $\frac{1}{2}$	13
(9)	1	1														1										3	2	20
(10)	1								1				1	1		1										5	1	19
(11)	1	1							1				1			1									1	8	1	16
(12)	1															1										2	3	20
(13)	1															1										2	4	19
(14)	1	1											1													3	3	19
(15)	1	1						1								1										4	6	15
(16)	1																								1	2	8	15
(17)	1													1											1	3	3	19
(18)	1												1												1	3	2	20
(19)	1															1										2	4	19
(20)	1		$\frac{1}{2}$									1				1										4 $\frac{1}{2}$	1 $\frac{1}{2}$	19

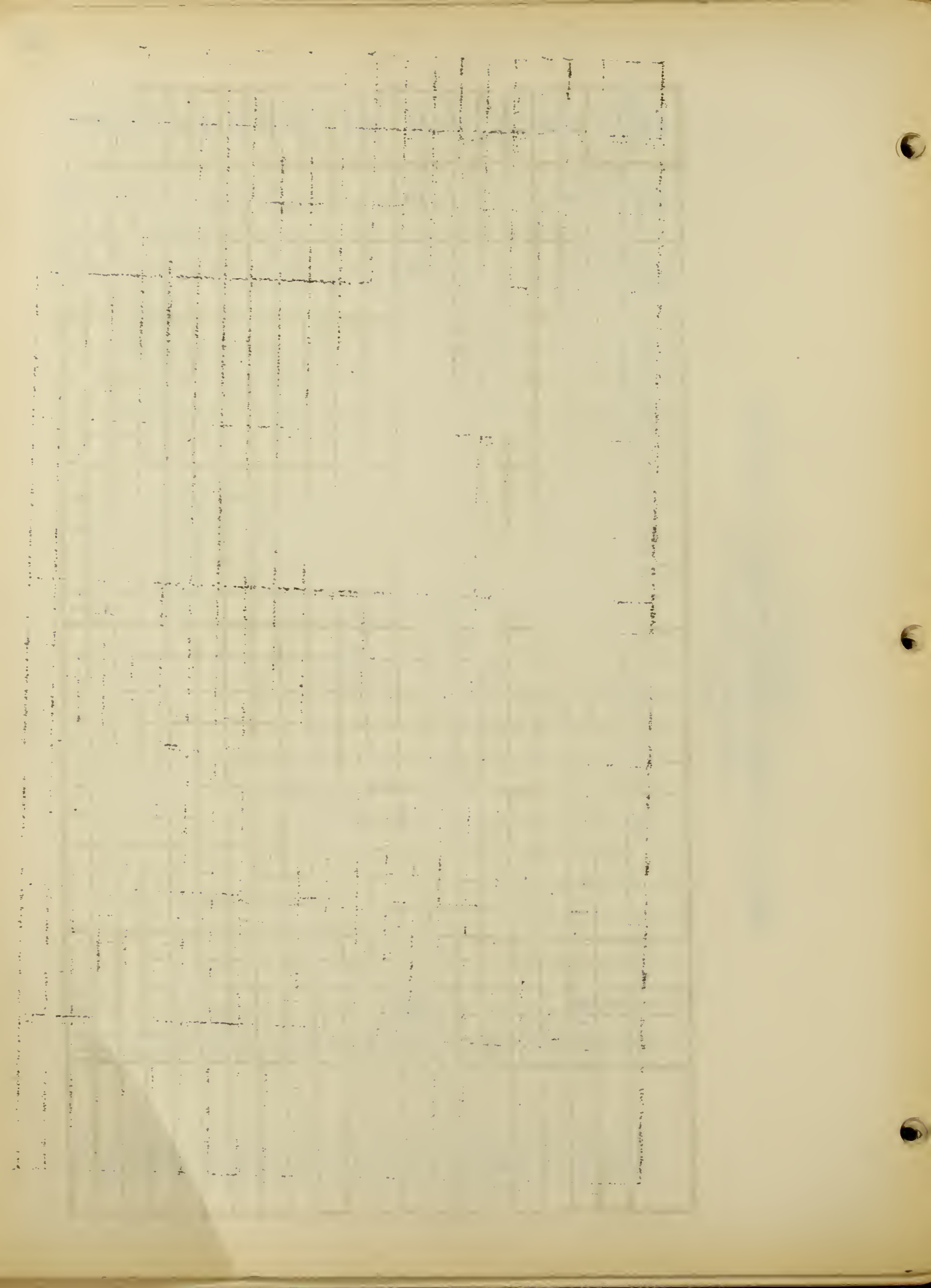


TABLE III (Continued)

Pupils	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	No. right	No. wrong	No. not complete
(21)	1																									1	4	20
(22)	1	1					1							1											1	5	9	11
(23)	1															1	1	1	1						1	6	1	18
(24)	1									1																2	2	21
(25)	1	1	$\frac{1}{2}$													1	1	1				1	1			8 $\frac{1}{2}$	5 $\frac{1}{2}$	11
(26)	1															1									1	3	5	17
TOTALS	26	10	2 $\frac{1}{2}$	0	0	1	0	3	0	5	0	2	0	8	1	15	0	5	3	2	0	1	1	0	12	98 $\frac{1}{2}$	103 $\frac{1}{2}$	448

SUMMARY

The total number of pupils in the class was 26.

The total number of questions correctly answered was 98.5 or 15%.¹ These ranged from 1 to 8.5, with an average of 3.79 and a median of 3. The probable error was $\pm .76$.

The total number of questions incorrectly answered was 103.5 or 16%. These ranged from 1 to 9 per pupil, with an average of 3.98 per pupil and a median of 4. The probable error was $\pm .90$.

The total number of questions omitted was 448 or 69%. These ranged from 11 to 21 per pupil, with an average of 17.23 and a median of 18. The probable error was ± 1.63 .

¹ The fractions in totals for this summary are due to the .5 credit given for the naming of one senator in question #3.

TABLE IV
SPREAD OF CORRECT ANSWERS FOR EACH OF 38 PUPILS
WHEELLOCK SCHOOL, KEENE, N. H.

Grade 6

Pupils	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	No. right	No. wrong	No. complete
(1)	1	1	$\frac{1}{2}$			1	1			1			1		1											6 $\frac{1}{2}$	7 $\frac{1}{2}$	11
(2)	1							1																		2	12	18
(3)	1											1			1											3	15	7
(4)	1												1													2	2	21
(5)	1											1	1		1											4	6	15
(6)	1												1											1		3	4	18
(7)	1		$\frac{1}{2}$					1				1	1		1			1							1	7 $\frac{1}{2}$	2	15 $\frac{1}{2}$
(8)	1							1				1														4	3	18
(9)	1												1		1			1	1							6	4	15
(10)	1		$\frac{1}{2}$							1			1	1	1			1	1						1	8 $\frac{1}{2}$	4	12 $\frac{1}{2}$
(11)	1		1										1			1		1								7	5	13
(12)	1		$\frac{1}{2}$				1	1	1	1			1			1		1	1	1						11 $\frac{1}{2}$	2	11 $\frac{1}{2}$
(13)	1																									1	8	16
(14)	1											1	1	1	1			1							1	7	2	16
(15)	1		$\frac{1}{2}$									1							1							3 $\frac{1}{2}$	4 $\frac{1}{2}$	17
(16)	1																									1	7	17
(17)	1		$\frac{1}{2}$													1										2 $\frac{1}{2}$	6	16 $\frac{1}{2}$
(18)	1												1			1										5	10	10
(19)	1								1																	1	7	17
(20)	1											1														2	5	18

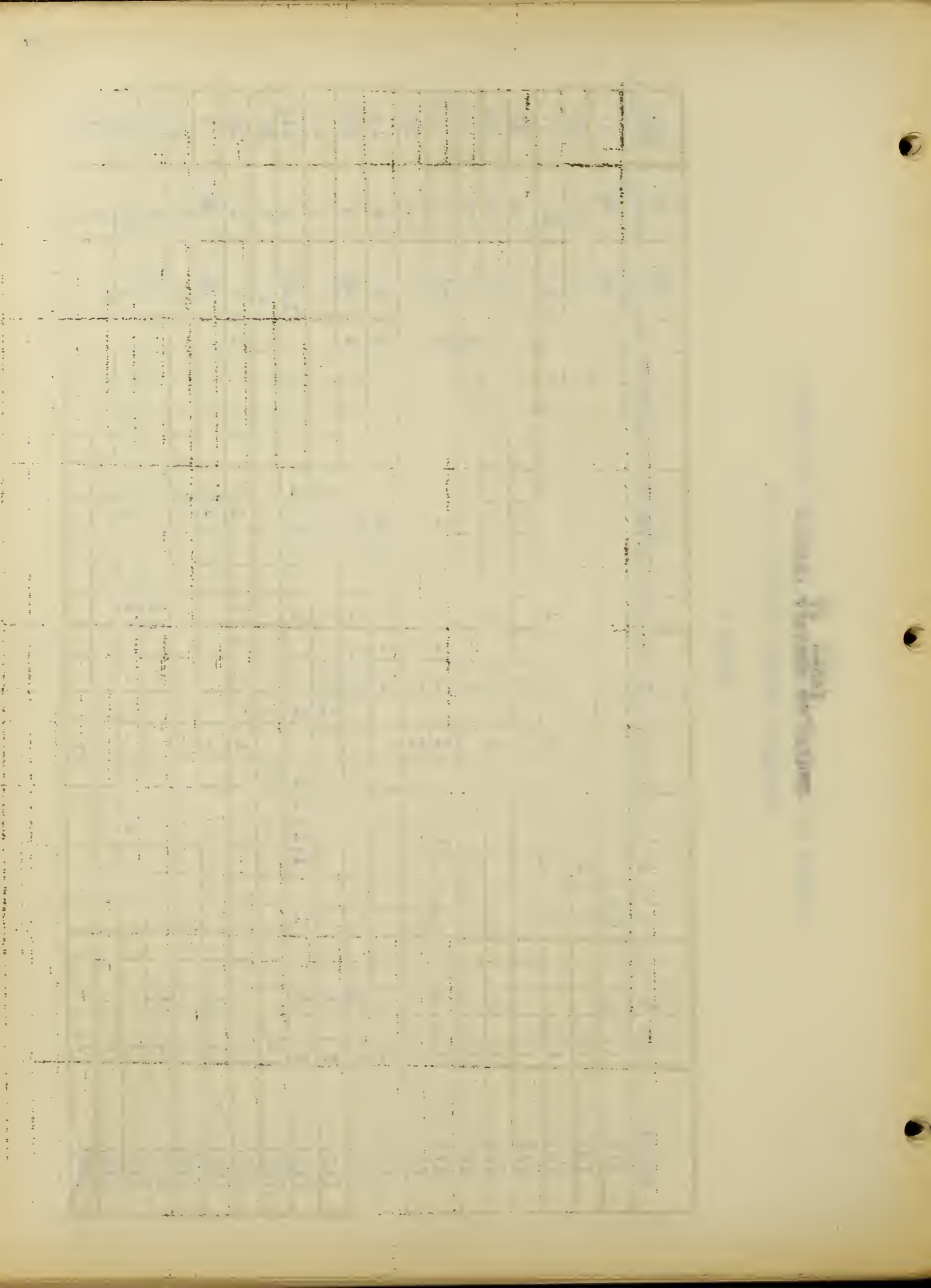


TABLE IV (Continued)

Pupils	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	No. right	No. wrong	No. not complete
(21)	1	1	$\frac{1}{2}$					1						1		1		1	1							6 $\frac{1}{2}$	3	15 $\frac{1}{2}$
(22)	1	1									1			1												3	5	17
(23)	1	1														1										2	1	22
(24)	1	1																								1	5	19
(25)	1	1											1													2	3	20
(26)	1	1																								1	15	9
(27)	1	1														1										2	1	22
(28)	1	1	$\frac{1}{2}$														1									1 $\frac{1}{2}$	5	18 $\frac{1}{2}$
(29)	1	1	$\frac{1}{2}$									1														2 $\frac{1}{2}$	1	21 $\frac{1}{2}$
(30)	1	1																								1	2	22
(31)	1	1																								1	13	11
(32)	1	1	$\frac{1}{2}$					1				1		1		1		1								6 $\frac{1}{2}$	11	7 $\frac{1}{2}$
(33)	1	1																								1	10	14
(34)	1	1								1			1													3	6	16
(35)	1	1										1				1			1						1	5	12	8
(36)	1	1											1													2	4	19
(37)	1	1	$\frac{1}{2}$													1			1	1					1	5 $\frac{1}{2}$	10	9 $\frac{1}{2}$
(38)	1	1											1			1										3	5	17

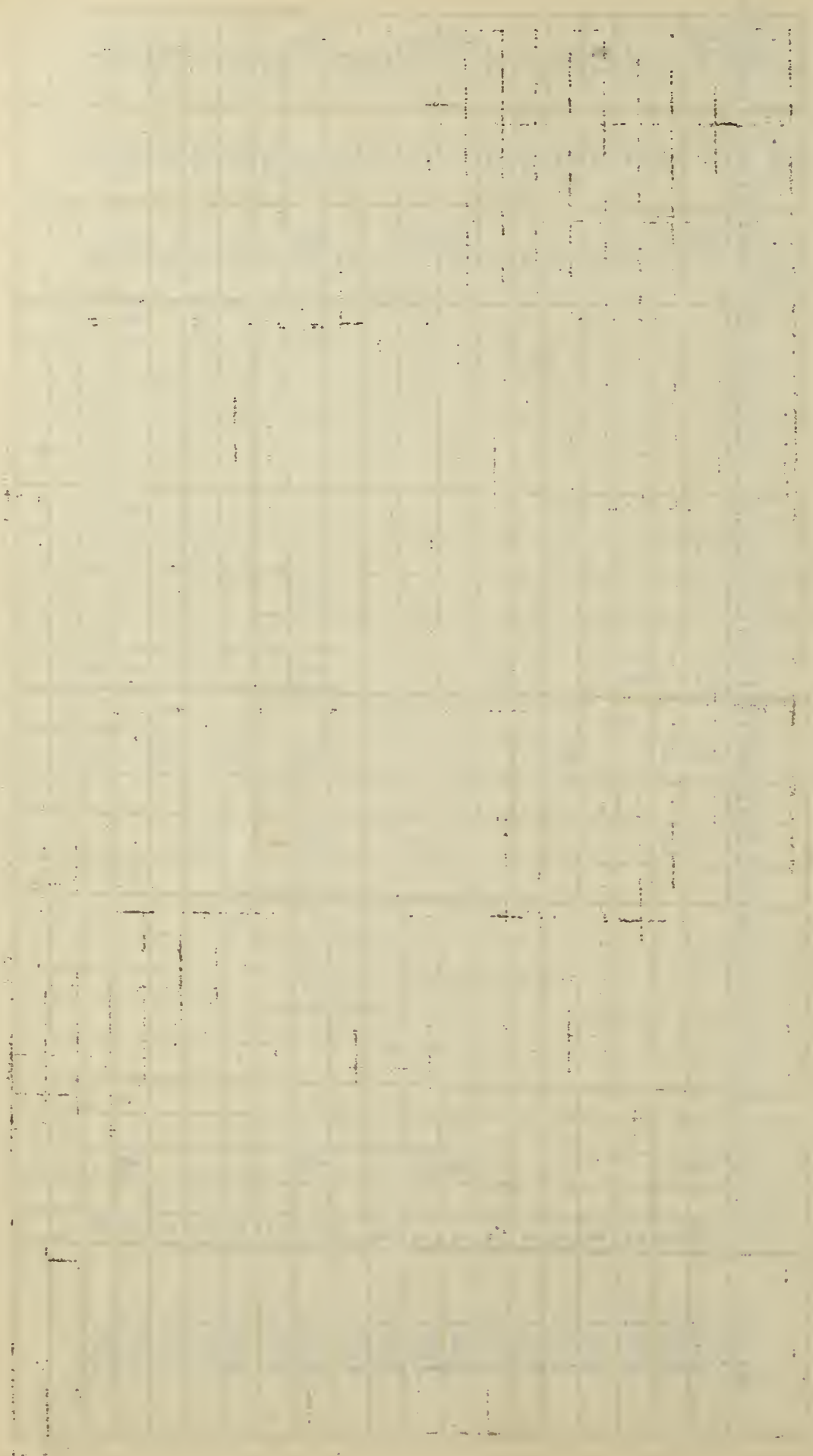


TABLE V

SPREAD OF CORRECT ANSWERS FOR EACH OF 65 PUPILS

FRANKLIN SCHOOL, KEENE, N. H.

Grade 8

Grade 8																												
Pupils	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	No. right	No. wrong	No. not complete
(1)	1	1																							1	2	5	18
(2)	1																									1	2	22
(3)	1		$\frac{1}{2}$													1									1	$3\frac{1}{2}$	$4\frac{1}{2}$	17
(4)	1															1	1								1	4	5	16
(5)	1		$\frac{1}{2}$													1	1	1							1	$5\frac{1}{2}$	$7\frac{1}{2}$	12
(6)	1	1	$\frac{1}{2}$				1	1		1						1	1	1	1						1	$11\frac{1}{2}$	$11\frac{1}{2}$	2
(7)	1	1	$\frac{1}{2}$								1					1										4	$11\frac{1}{2}$	9
(8)	1	1	$\frac{1}{2}$													1										$3\frac{1}{2}$	$5\frac{1}{2}$	16
(9)	1		$\frac{1}{2}$																							$1\frac{1}{2}$	$4\frac{1}{2}$	19
(10)	1		$\frac{1}{2}$					1		1			1			1	1	1								$7\frac{1}{2}$	$11\frac{1}{2}$	6
(11)	1																									1	2	22
(12)	1		$\frac{1}{2}$													1										3	$4\frac{1}{2}$	17
(13)	1	1	$\frac{1}{2}$					1								1									1	$4\frac{1}{2}$	$11\frac{1}{2}$	9
(14)	1		$\frac{1}{2}$					1								1									1	$4\frac{1}{2}$	$4\frac{1}{2}$	16
(15)	1		$\frac{1}{2}$											1												3	$3\frac{1}{2}$	18
(16)	1	1	$\frac{1}{2}$								1					1										$4\frac{1}{2}$	$8\frac{1}{2}$	12
(17)	1		$\frac{1}{2}$							1						1										3	$4\frac{1}{2}$	17
(18)	1																									1	11	13
(19)	1		$\frac{1}{2}$																						1	$2\frac{1}{2}$	$\frac{1}{2}$	22
(20)	1																								1	2	0	23

TABLE V (Continued)

Pupils	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	No. right	No. wrong	No. not complete
(21)	1		$\frac{1}{2}$																						1	$2\frac{1}{2}$	$7\frac{1}{2}$	15
(22)	1																									1	7	17
(23)	1		$\frac{1}{2}$																						1	$4\frac{1}{2}$	$8\frac{1}{2}$	12
(24)	1		$\frac{1}{2}$																							$3\frac{1}{2}$	$2\frac{1}{2}$	19
(25)	1		$\frac{1}{2}$																							$2\frac{1}{2}$	$7\frac{1}{2}$	15
(26)	1		$\frac{1}{2}$																							$1\frac{1}{2}$	$4\frac{1}{2}$	19
(27)	1		$\frac{1}{2}$																							$1\frac{1}{2}$	$5\frac{1}{2}$	18
(28)	1		$\frac{1}{2}$																							$1\frac{1}{2}$	$7\frac{1}{2}$	16
(29)	1	1								1																3	6	16
(30)	1		$\frac{1}{2}$				1		1	1						1		1							1	$9\frac{1}{2}$	$8\frac{1}{2}$	7
(31)	1		$\frac{1}{2}$																							$1\frac{1}{2}$	$4\frac{1}{2}$	19
(32)	1																									1	7	17
(33)	1																									1	13	11
(34)	1		$\frac{1}{2}$								1															$2\frac{1}{2}$	$11\frac{1}{2}$	11
(35)	1	1	$\frac{1}{2}$			1		1		1							1	1							1	$8\frac{1}{2}$	$13\frac{1}{2}$	3
(36)	1		$\frac{1}{2}$																						1	$2\frac{1}{2}$	$2\frac{1}{2}$	20
(37)	1		$\frac{1}{2}$																							$1\frac{1}{2}$	$16\frac{1}{2}$	7
(38)	1															1	1									3	10	12
(39)	1		$\frac{1}{2}$													1										$2\frac{1}{2}$	$1\frac{1}{2}$	21
(40)	1		$\frac{1}{2}$																						1	$2\frac{1}{2}$	$5\frac{1}{2}$	17

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TABLE V (Continued)

Pupils	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	No. right	No. wrong	No. not complete	
(41)	1		$\frac{1}{2}$												1	1										3 $\frac{1}{2}$	5 $\frac{1}{2}$	16	
(42)	1		$\frac{1}{2}$												1				1	1					1	5 $\frac{1}{2}$	8 $\frac{1}{2}$	11	
(43)	1		$\frac{1}{2}$																								13 $\frac{1}{2}$	10	
(44)	1		$\frac{1}{2}$																							1 $\frac{1}{2}$	7 $\frac{1}{2}$	16	
(45)	1		$\frac{1}{2}$																						1	2 $\frac{1}{2}$	13 $\frac{1}{2}$	9	
(46)	1		$\frac{1}{2}$									1				1		1		1					1	6 $\frac{1}{2}$	2 $\frac{1}{2}$	16	
(47)	1																									1	2	22	
(48)	1		$\frac{1}{2}$			1		1								1		1								1	6 $\frac{1}{2}$	9 $\frac{1}{2}$	9
(49)	1		$\frac{1}{2}$													1									1	3 $\frac{1}{2}$	3 $\frac{1}{2}$	18	
(50)	1																										0	24	
(51)	1		$\frac{1}{2}$																					1	2 $\frac{1}{2}$	7 $\frac{1}{2}$	15		
(52)	1																									1	7	17	
(53)	1																									1	2	22	
(54)	1	1	$\frac{1}{2}$												1									1	4 $\frac{1}{2}$	7 $\frac{1}{2}$	13		
(55)	1		$\frac{1}{2}$												1									1	3 $\frac{1}{2}$	3 $\frac{1}{2}$	18		
(56)	1									1	1				1									1	5	4	16		
(57)	1		$\frac{1}{2}$												1		1							1	4 $\frac{1}{2}$	5 $\frac{1}{2}$	15		
(58)	1		$\frac{1}{2}$				1								1									1	7 $\frac{1}{2}$	7 $\frac{1}{2}$	10		
(59)	1																			1					1	7	17		
(60)	1		$\frac{1}{2}$								1															2 $\frac{1}{2}$	9 $\frac{1}{2}$	13	

TABLE V (Continued)

Pupils	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	No. right	No. wrong	No. not complete
(61)	1		$\frac{1}{2}$							1																$3\frac{1}{2}$	$4\frac{1}{2}$	17
(62)	1		$\frac{1}{2}$																							$1\frac{1}{2}$	$4\frac{1}{2}$	19
(63)	1		$\frac{1}{2}$												1											$2\frac{1}{2}$	$7\frac{1}{2}$	15
(64)	1		$\frac{1}{2}$																							$1\frac{1}{2}$	$3\frac{1}{2}$	20
(65)	1		$\frac{1}{2}$																							$1\frac{1}{2}$	$7\frac{1}{2}$	16
TOTALS	65	8	24	0	0	4	2	6	2	7	6	3	1	1	1	29	1	6	10	6	0	0	0	0	27	209	424	992

SUMMARY

The total number of pupils in the class was 65.

The total number of correct answers was 209 or 12%. The range of correct answers was from 1 to 11.5 per pupil, while the average was 3.22 and the median 2.5. The probable error was $\pm .19$.

The total number of incorrect answers was 424 or 26%. The range of incorrect answers was from 0 to .6.5 per pupil, while the average was 6.52 and the median 6. The probable error was $\pm .68$.

The total number of questions omitted was 992 or 61%. The range of questions omitted was from 2 to 24 per pupil, while the average was 15.25 and the median 16. The probable error was ± 1.31 .

TABLE VI
SPREAD OF CORRECT ANSWERS FOR EACH OF 22 PUPILS
TILDEN SCHOOL, KEENE, N. H.

Grade 6

Pupils	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	No. right	No. wrong	No. not complete
(1)	1																									1	1	23
(2)	1																									1	0	24
(3)	1																									1	12	12
(4)	1																									1	4	20
(5)	1																									1	0	24
(6)	1													1												2	1	22
(7)	1																									1	11	13
(8)		1																								1	4	20
(9)	1																									1	3	21
(10)	1		$\frac{1}{2}$																						1	$2\frac{1}{2}$	5	$17\frac{1}{2}$
(11)	1																								1	3	1	21
(12)	1													1												1	5	19
(13)	1																									1	0	24
(14)	1																									1	4	20
(15)	1																									1	4	20
(16)	1																									1	2	22
(17)	1																									1	2	22
(18)	1																									1	2	22
(19)	1																									1	2	22
(20)	1													1												2	1	23
																										2	2	21

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360	361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380	381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	400	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438	439	440	441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	457	458	459	460	461	462	463	464	465	466	467	468	469	470	471	472	473	474	475	476	477	478	479	480	481	482	483	484	485	486	487	488	489	490	491	492	493	494	495	496	497	498	499	500	501	502	503	504	505	506	507	508	509	510	511	512	513	514	515	516	517	518	519	520	521	522	523	524	525	526	527	528	529	530	531	532	533	534	535	536	537	538	539	540	541	542	543	544	545	546	547	548	549	550	551	552	553	554	555	556	557	558	559	560	561	562	563	564	565	566	567	568	569	570	571	572	573	574	575	576	577	578	579	580	581	582	583	584	585	586	587	588	589	590	591	592	593	594	595	596	597	598	599	600	601	602	603	604	605	606	607	608	609	610	611	612	613	614	615	616	617	618	619	620	621	622	623	624	625	626	627	628	629	630	631	632	633	634	635	636	637	638	639	640	641	642	643	644	645	646	647	648	649	650	651	652	653	654	655	656	657	658	659	660	661	662	663	664	665	666	667	668	669	670	671	672	673	674	675	676	677	678	679	680	681	682	683	684	685	686	687	688	689	690	691	692	693	694	695	696	697	698	699	700	701	702	703	704	705	706	707	708	709	710	711	712	713	714	715	716	717	718	719	720	721	722	723	724	725	726	727	728	729	730	731	732	733	734	735	736	737	738	739	740	741	742	743	744	745	746	747	748	749	750	751	752	753	754	755	756	757	758	759	760	761	762	763	764	765	766	767	768	769	770	771	772	773	774	775	776	777	778	779	780	781	782	783	784	785	786	787	788	789	790	791	792	793	794	795	796	797	798	799	800	801	802	803	804	805	806	807	808	809	810	811	812	813	814	815	816	817	818	819	820	821	822	823	824	825	826	827	828	829	830	831	832	833	834	835	836	837	838	839	840	841	842	843	844	845	846	847	848	849	850	851	852	853	854	855	856	857	858	859	860	861	862	863	864	865	866	867	868	869	870	871	872	873	874	875	876	877	878	879	880	881	882	883	884	885	886	887	888	889	890	891	892	893	894	895	896	897	898	899	900	901	902	903	904	905	906	907	908	909	910	911	912	913	914	915	916	917	918	919	920	921	922	923	924	925	926	927	928	929	930	931	932	933	934	935	936	937	938	939	940	941	942	943	944	945	946	947	948	949	950	951	952	953	954	955	956	957	958	959	960	961	962	963	964	965	966	967	968	969	970	971	972	973	974	975	976	977	978	979	980	981	982	983	984	985	986	987	988	989	990	991	992	993	994	995	996	997	998	999	1000	1001	1002	1003	1004	1005	1006	1007	1008	1009	1010	1011	1012	1013	1014	1015	1016	1017	1018	1019	1020	1021	1022	1023	1024	1025	1026	1027	1028	1029	1030	1031	1032	1033	1034	1035	1036	1037	1038	1039	1040	1041	1042	1043	1044	1045	1046	1047	1048	1049	1050	1051	1052	1053	1054	1055	1056	1057	1058	1059	1060	1061	1062	1063	1064	1065	1066	1067	1068	1069	1070	1071	1072	1073	1074	1075	1076	1077	1078	1079	1080	1081	1082	1083	1084	1085	1086	1087	1088	1089	1090	1091	1092	1093	1094	1095	1096	1097	1098	1099	1100	1101	1102	1103	1104	1105	1106	1107	1108	1109	1110	1111	1112	1113	1114	1115	1116	1117	1118	1119	1120	1121	1122	1123	1124	1125	1126	1127	1128	1129	1130	1131	1132	1133	1134	1135	1136	1137	1138	1139	1140	1141	1142	1143	1144	1145	1146	1147	1148	1149	1150	1151	1152	1153	1154	1155	1156	1157	1158	1159	1160	1161	1162	1163	1164	1165	1166	1167	1168	1169	1170	1171	1172	1173	1174	1175	1176	1177	1178	1179	1180	1181	1182	1183	1184	1185	1186	1187	1188	1189	1190	1191	1192	1193	1194	1195	1196	1197	1198	1199	1200	1201	1202	1203	1204	1205	1206	1207	1208	1209	1210	1211	1212	1213	1214	1215	1216	1217	1218	1219	1220	1221	12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TABLE VI (Continued)

Pupils	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	No. right	No. wrong	No. not complete
(21)	1		$\frac{1}{2}$							1				1		1										$4\frac{1}{2}$	$2\frac{1}{2}$	18
(22)	1																									1	0	24
TOTALS	21	1	1	0	0	0	0	0	0	1	0	0	0	4	0	1	0	0	0	0	0	0	0	0	2	31	66.5	452 $\frac{1}{2}$

SUMMARY

The total number of pupils in the class was 22.

The total number of correct answers was 31 or 6%. The number of questions answered correctly ranged from 1 to 4.5 per pupil, with an average of 1.41 per pupil and a median of 1. The probable error was ± 1.59 .

The number of questions answered incorrectly was 66.5 or 12%. The number of questions answered incorrectly ranged from 0 to 12, with an average of 3.02 and a median of 2. The probable error was ± 1.15 .

The total number of questions omitted was 452.5 or 82%. The number of questions omitted ranged from 12 to 24 per pupil, with an average of 20.57 per pupil and a median of 21. The probable error was ± 1.74 .

TABLE VII

SPREAD OF CORRECT ANSWERS FOR EACH OF 25 PUPILS

NORTH SCHOOL, BELLINGHAM, MASS.

Grade 8

Pupils	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	No. right	No. wrong	No. not complete
(1)	1	1																								1	9	15
(2)	1													1												2	3	20
(3)	1		$\frac{1}{2}$						1			1		1		1									1	$6\frac{1}{2}$	11	$7\frac{1}{2}$
(4)	1													1											1	3	1	21
(5)	1	1							1					1		1	1	1								8	4	13
(6)	1	1													1	1		1								4	7	14
(7)	1	1										1				1	1									5	1	19
(8)	1	$\frac{1}{2}$													1	1			1							$3\frac{1}{2}$	15	$6\frac{1}{2}$
(9)	1											1		1		1			1							5	6	14
(10)	1											1		1		1			1							5	8	12
(11)	1		$\frac{1}{2}$																1						1	$3\frac{1}{2}$	7	$14\frac{1}{2}$
(12)	1																	1	1					1	5	1	19	
(13)	1		$\frac{1}{2}$					1		1					1			1	1	1						$8\frac{1}{2}$	4	$12\frac{1}{2}$
(14)	1																									1	5	19
(15)	1													1												3	1	21
(16)	1	1	$\frac{1}{2}$						1	1		1			1		1	1	1					1	$10\frac{1}{2}$	2	$12\frac{1}{2}$	
(17)	1		1													1										4	2	19
(18)	1													1												2	5	18
(19)	1											1												1	3	9	13	
(20)	1																									1	6	18

TABLE VII (Continued)

Pupils	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	No. right	No. wrong	No. not complete
(21)	1																									1	4	20
(22)	1										1			1				1								4	5	16
(23)	1	1														1		1								4	3	18
(24)	1																	1						1		3	11	11
(25)	1									1																3	10	12
TOTALS	25	5	3½	0	0	0	1	0	3	4	0	8	0	10	1	11	0	9	3	0	0	0	0	7	99½	140	385½	

SUMMARY

The total number of pupils in the class was 25.

The total number of answers correctly answered was 99.5 or 16%. The number of questions answered correctly ranged from 1 to 10.5 per pupil, with an average of 3.98 per pupil and a median of 3.5. The probable error was $\pm .82$.

The total number of incorrect answers was 140 or 23%. The number of questions incorrectly answered ranged from 1 to 15, with an average of 5.60 and a median of 5. The probable error was $\pm .98$.

The total number of questions omitted was 385.5 or 61%. The number of questions omitted ranged from 6.5 to 21, with an average of 15.42 and a median of 15. The probable error was ± 1.53 .

TABLE VIII

SPREAD OF CORRECT ANSWERS FOR EACH OF 46 PUPILS

WALPOLE SCHOOL, WALPOLE, MASS.

Grade 6

Pupils	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	No. right	No. wrong	No. not complete
(1)	1															1				1						3	7	15
(2)	1								1							1		1	1							5	9	11
(3)	1																									1	6	18
(4)	1																									1	8	16
(5)	1																									1	0	24
(6)	1															1										2	3	20
(7)	1																				1				1	2	2	21
(8)	1																									1	7	17
(9)	1																									1	5	19
(10)	1																								1		4	18
(11)	1		$\frac{1}{2}$													1										1 $\frac{1}{2}$	3 $\frac{1}{2}$	20
(12)	1															1										2	1	22
(13)	1																									1	4	20
(14)	1																									1	0	24
(15)	1															1										2	1	23
(16)	1		$\frac{1}{2}$																							1 $\frac{1}{2}$	5 $\frac{1}{2}$	18
(17)	1		$\frac{1}{2}$																							1 $\frac{1}{2}$	2 $\frac{1}{2}$	21
(18)	1																									1	1	23
(19)	1																									1	3	21
(20)	1																									1	8	16

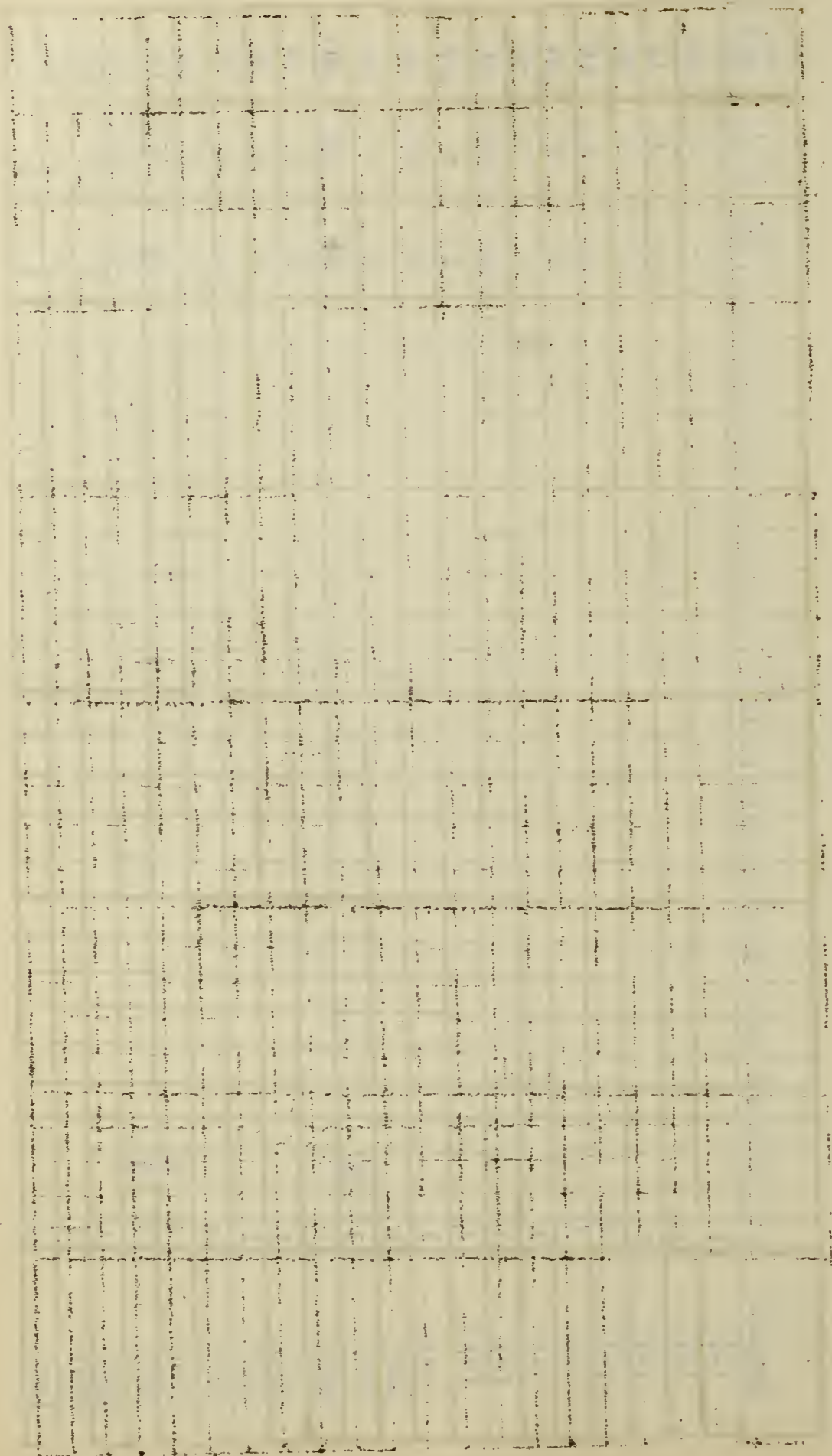


TABLE VIII (Continued)

Pupils	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	No. right	No. wrong	No. not complete
(21)	1																									1	3	21
(22)	1		$\frac{1}{2}$																1							$2\frac{1}{2}$	$10\frac{1}{2}$	12
(23)	1		1															1	1							4	10	11
(24)																										0	5	20
(25)	1																									1	1	23
(26)	1																									1	1	23
(27)	1																									1	0	24
(28)	1	1	$\frac{1}{2}$														1									$3\frac{1}{2}$	$5\frac{1}{2}$	16
(29)	1																									1	1	23
(30)	1															1										2	3	20
(31)	1																									1	4	20
(32)	1	1	$\frac{1}{2}$																							$2\frac{1}{2}$	$13\frac{1}{2}$	9
(33)	1																							1		2	2	21
(34)																										0	0	25
(35)	1		$\frac{1}{2}$													1			1							$3\frac{1}{2}$	$6\frac{1}{2}$	15
(36)	1																									1	0	24
(37)	1																									1	4	20
(38)	1																									1	0	24
(39)	1																									1	1	23
(40)	1																									1	3	21

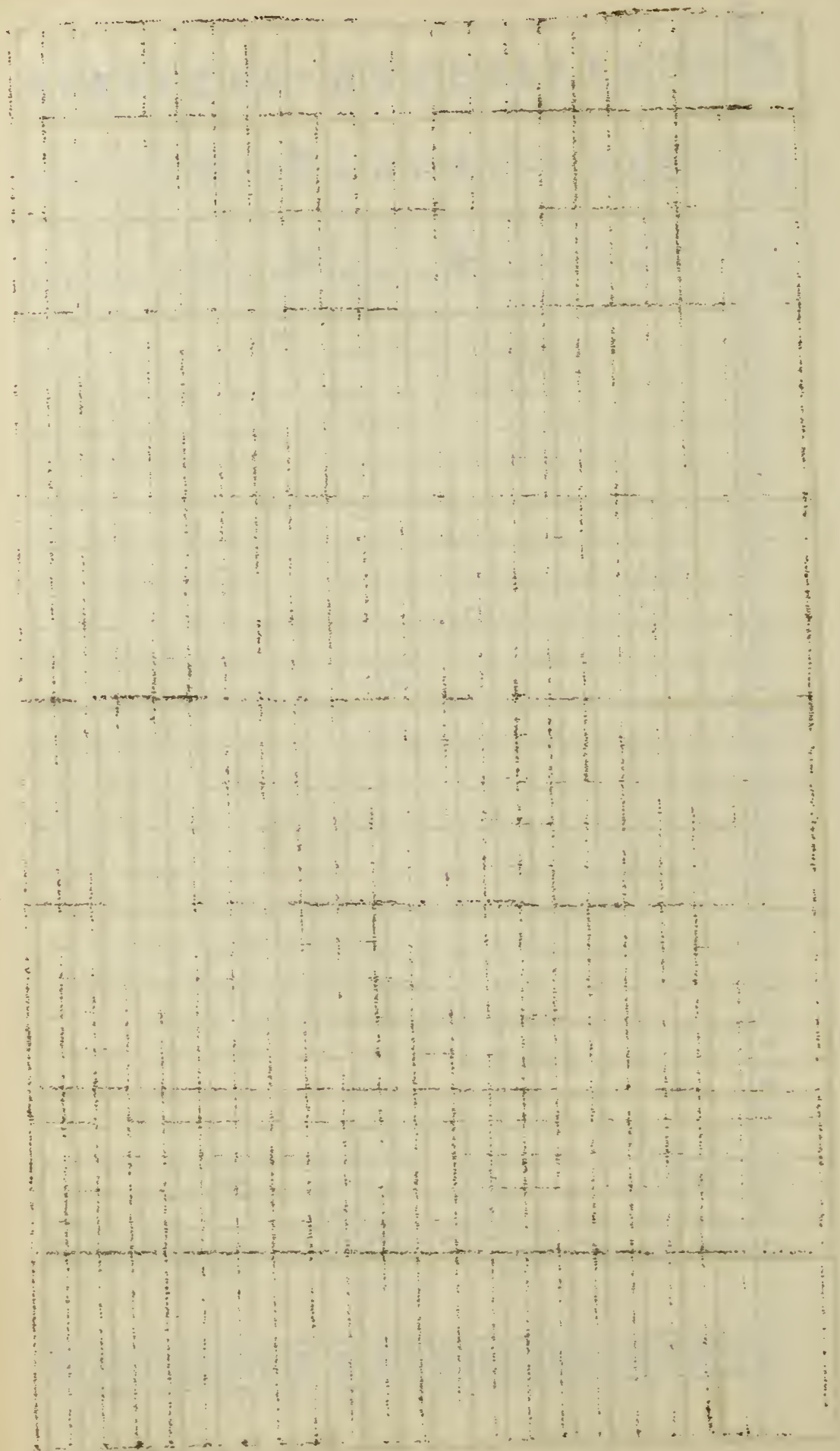


TABLE VIII (Continued)

Pupils	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	No. right	No. wrong	No. not complete
(41)	1																									1	2	22
(42)	1																									1	3	21
(43)	1																									1	12	12
(44)	1																									1	2	22
(45)	1																									1	2	22
(46)	1														1			1								3	3	19
TOTALS	45	2	4½	0	0	0	0	0	1	0	0	0	0	0	0	9	0	3	5	1	0	0	0	0	3	73½	178½	897

SUMMARY

The total number of pupils in the class was 46.

The total number of correct answers was 73.5 or 7%. The number of questions answered correctly ranged from 0 to 5, with an average of 1.62 per pupil and a median of 1. The probable error was $\pm .16$.

The total number of incorrect answers was 178.5. The number of questions answered incorrectly ranged from 0 to 13.5, with an average of 3.88 per pupil, and a median of 3. The probable error was $\pm .78$.

The total number of questions omitted was 898 or 15%. The number of questions omitted ranged from 7 to 25, with an average of 19.50 and a median of 21.5. The probable error was ± 1.50 .

1. The first part of the report is a general introduction to the subject of the study. It discusses the importance of the problem and the objectives of the research. It also mentions the scope of the study and the methods used.

2. The second part of the report is a detailed description of the experimental work. It includes a description of the apparatus used, the procedure followed, and the results obtained. It also discusses the errors and the limitations of the experiment.

3. The third part of the report is a discussion of the results. It compares the results with the theoretical predictions and with the results of other experiments. It also discusses the implications of the results and the conclusions drawn from the study.

4. The fourth part of the report is a conclusion. It summarizes the main findings of the study and states the conclusions drawn from the results. It also mentions the suggestions for further work.

Table 1	
1	2
3	4
5	6
7	8
9	10
11	12
13	14
15	16
17	18
19	20
21	22
23	24
25	26
27	28
29	30
31	32
33	34
35	36
37	38
39	40
41	42
43	44
45	46
47	48
49	50
51	52
53	54
55	56
57	58
59	60
61	62
63	64
65	66
67	68
69	70
71	72
73	74
75	76
77	78
79	80
81	82
83	84
85	86
87	88
89	90
91	92
93	94
95	96
97	98
99	100

1. The first part of the report is a general introduction to the subject of the study. It discusses the importance of the problem and the objectives of the research. It also mentions the scope of the study and the methods used.

2. The second part of the report is a detailed description of the experimental work. It includes a description of the apparatus used, the procedure followed, and the results obtained. It also discusses the errors and the limitations of the experiment.

3. The third part of the report is a discussion of the results. It compares the results with the theoretical predictions and with the results of other experiments. It also discusses the implications of the results and the conclusions drawn from the study.

4. The fourth part of the report is a conclusion. It summarizes the main findings of the study and states the conclusions drawn from the results. It also mentions the suggestions for further work.

TABLE IX

SPREAD OF CORRECT ANSWERS FOR EACH OF 28 PUPILS

WALPOLE SCHOOL, WALPOLE, MASS.

Grade 7

Pupils	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	No. right	No. wrong	No. not complete
(1)	1																									1	1	23
(2)	1															1								1		3	6	16
(3)	1	1														1			1							4	3	18
(4)	1	1																						1		4	4	17
(5)	1	1					1						1				1	1						1		7	8	10
(6)	1															1			1		1				1	5	8	12
(7)	1																	1		1						3	9	13
(8)	1																1									2	3	20
(9)	1	1															1								1	4	5	16
(10)	1	1															1								1	4	5	16
(11)	1																									1	5	19
(12)	1										1						1									3	8	14
(13)	1																							1		2	3	20
(14)	1																							1		2	6	17
(15)	1							1																		2	1	22
(16)	1															1								1		4	7	14
(17)	1	1																								2	8	15
(18)	1																									1	4	20
(19)	1																									1	6	18
(20)	1																									1	6	18

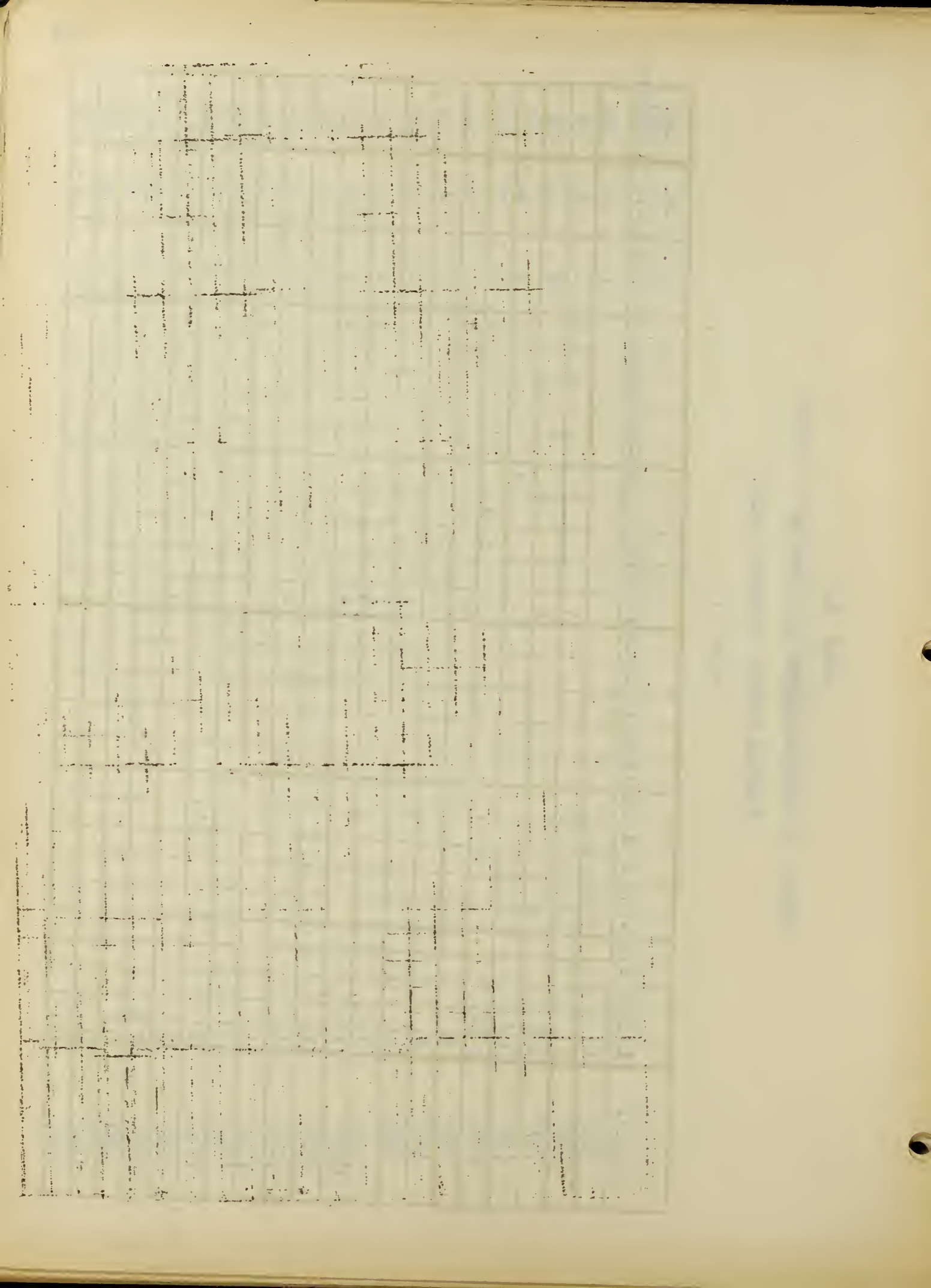


TABLE IX (Continued)

Pupils	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	No. right	No. wrong	No. not complete
(21)	1																									1	4	20
(22)	1														1								1			3	12	10
(23)	1													1		1	1	1					1			6	5	14
(24)	1												1													1	10	14
(25)	1																									1	6	18
(26)	1																									1	2	22
(27)	1								1							1	1	1						1		6	3	16
(28)	1																							1		2	4	19
TOTALS	28	6	0	0	0	0	0	1	2	0	1	0	1	1	0	11	0	4	5	2	1	0	0	1	13	77	152	471

SUMMARY

The total number of pupils in the class was 28.

The total number of questions answered correctly was 77 or 11%. The total number of these questions answered per pupil ranged from 1 to 7, with an average of 2.75 per pupil and a median of 2. The probable error was $\pm .68$.

The total number of questions incorrectly answered was 152 or 22%. Of these the range per pupil was from 1 to 12, with an average of 5.43 and 5 as the median. The probable error was $\pm .96$.

The total number of questions omitted was 471 or 67%. The number omitted ranged from 10 to 23 per pupil, with an average of 16.82 and 17 as the median. The probable error was ± 1.57 .

TABLE X

SPREAD OF CORRECT ANSWERS FOR EACH OF 48 PUPILS

WALPOLE SCHOOL, WALPOLE, MASS.

Grade 8

Pupils	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	No. right	No. wrong	No. not complete
(1)	1	1	$\frac{1}{2}$									1				1	1	1	1	1						7 $\frac{1}{2}$	1	16 $\frac{1}{2}$
(2)	1													1		1	1	1	1	1						6	1	18
(3)	1	1	$\frac{1}{2}$		1			1	1	1	1	1	1	1		1	1	1	1	1			1	1	1	16 $\frac{1}{2}$	6 $\frac{1}{2}$	2
(4)	1		1									1	1	1		1	1	1								7	3	15
(5)	1									1		1				1			1							6	0	19
(6)	1	1	$\frac{1}{2}$						1	1				1		1	1							1	1	7 $\frac{1}{2}$	3	14 $\frac{1}{2}$
(7)	1											1		1												4	10	11
(8)	1	1					1						1	1		1	1	1	1						1	9	1	15
(9)	1											1		1			1									4	2	19
(10)	1											1												1		4	3	18
(11)	1	1									1	1		1	1	1										8	1	16
(12)	1	1	1						1							1	1		1							6	3	16
(13)	1	1					1		1	1	1	1			1	1	1	1	1					1	1	13	5	7
(14)	1	1					1		1	1			1	1	1	1	1	1	1	1			1			13	6	6
(15)	1											1		1		1										5	3	17
(16)	1	1	$\frac{1}{2}$				1		1	1		1	1	1	1	1			1							11 $\frac{1}{2}$	6 $\frac{1}{2}$	7
(17)	1		$\frac{1}{2}$					1		1	1	1		1		1	1							1	1	8 $\frac{1}{2}$	2	14 $\frac{1}{2}$
(18)	1							1					1		1	1										5	2	18
(19)	1	1	1						1			1		1		1	1	1	1	1						11	6	8
(20)	1									1	1	1		1	1	1			1					1	1	10	5	10

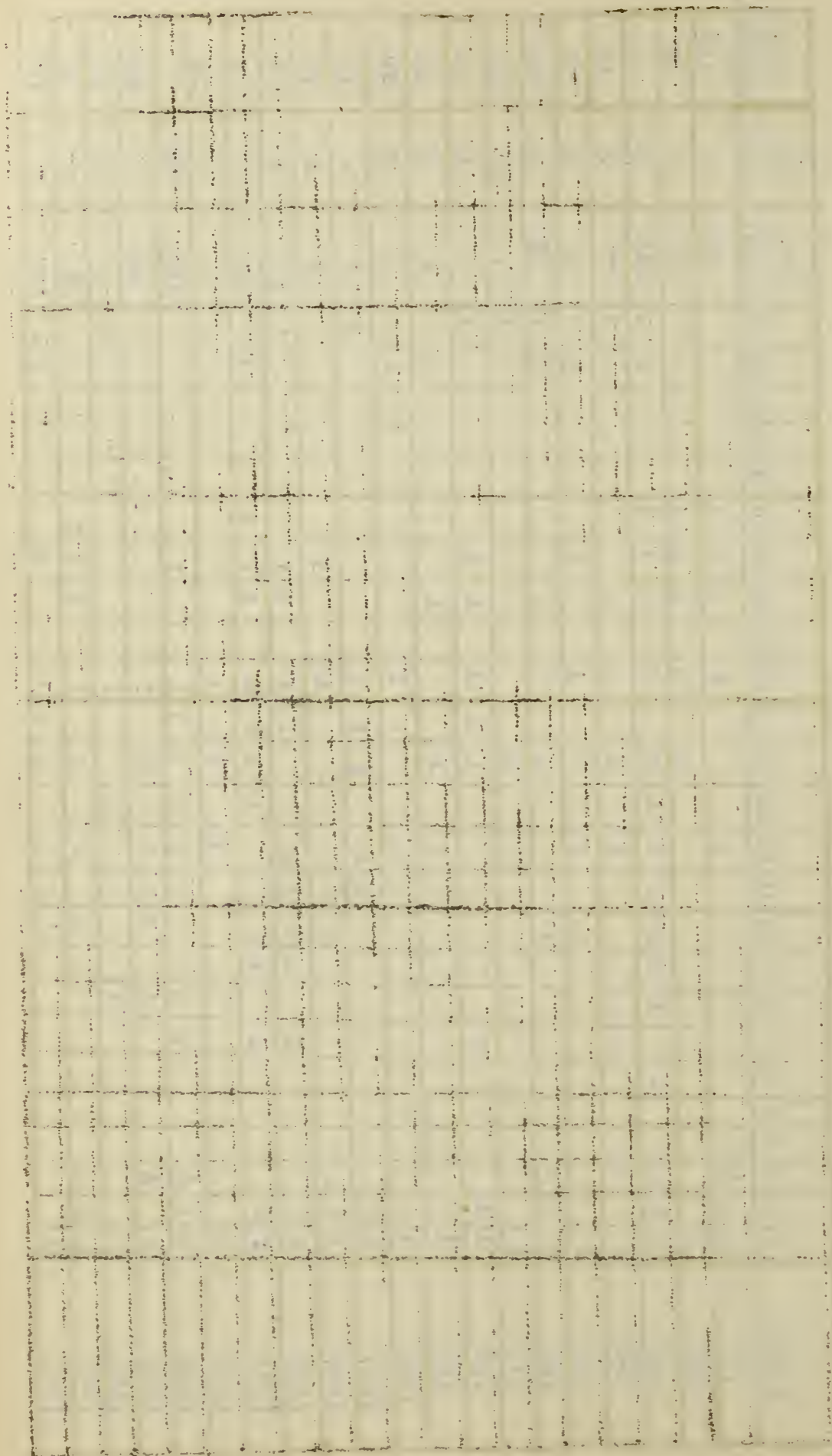


TABLE X (Continued)

Pupils	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	No. right	No. wrong	No. not complete
(21)	1	1	1					1				1		1	1	1	1	1	1	1				1	1	12½	3	9½
(22)	1	1	1					1								1								1		6	2	17
(23)	1	1					1		1			1		1		1	1	1		1				1		10	4	11
(24)	1	1	½				1	1				1		1		1	1	1	1							9½	3	12½
(25)	1							1		1				1												4	3	18
(26)	1												1			1			1							4	4	17
(27)	1		½					1								1	1		1							4½	1	19½
(28)	1								1				1			1										4	3	18
(29)	1							1	1	1	1	1	1	1	1	1	1		1					1		12	1	12
(30)	1															1										2	1	22
(31)	1											1	1	1					1							5	2	18
(32)	1											1	1	1	1	1	1	1	1							8	1	16
(33)	1							1		1		1	1	1		1										7	5	13
(34)	1											1		1												3	0	22
(35)	1							1	1			1		1		1	1		1				1	1		9	2	14
(36)	1											1		1		1	1	1	1							7	1	17
(37)	1											1	1		1									1		5	2	18
(38)	1											1		1												3	0	22
(39)	1							1	1			1	1	1												6	3	16
(40)	1											1	1	1	1	1	1									6	1	18

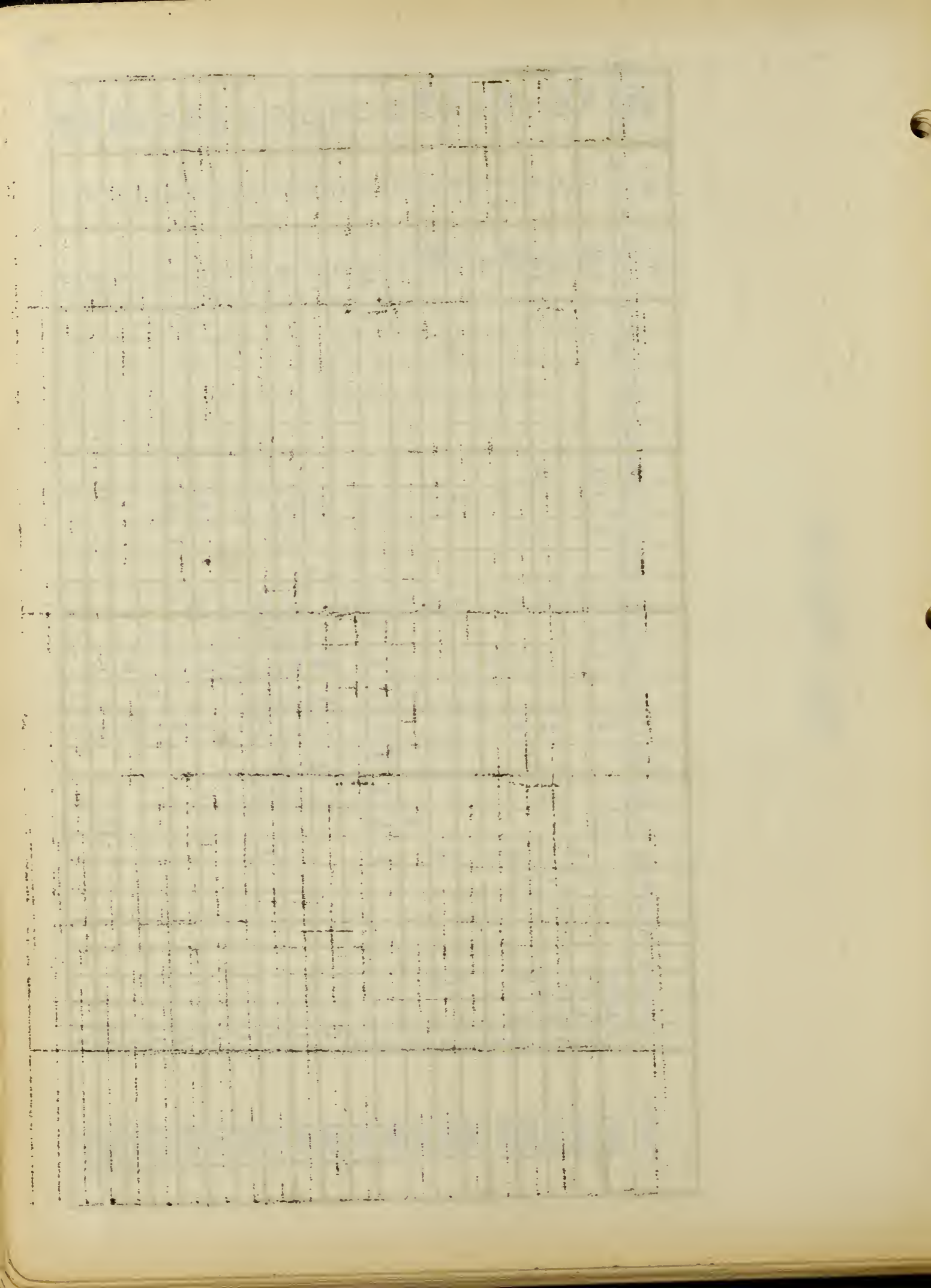


TABLE X (Continued)

Pupils	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	No. right	No. wrong	No. Not complete
(41)	1								1					1												3	5	17
(42)	1					1		1			1	1	1		1		1		1	1				1	10	4	11	
(43)	1	1													1	1		1						1	5	7	13	
(44)	1		$\frac{1}{2}$						1						1		1		1							4 $\frac{1}{2}$	1	19 $\frac{1}{2}$
(45)	1								1					1												3	2	20
(46)	1	1									1	1			1		1	1	1							7	1	17
(47)	1										1				1		1		1					1	5	4	16	
(48)	1								1			1	1			1			1							6	4	15
TOTALS	48	16	8 $\frac{1}{2}$	0	0	2	6	12	11	17	6	32	15	31	11	38	0	17	25	8	0	0	0	7	21	331.5	139	729.5

SUMMARY

The total number of pupils in the class was 48.

The total number of questions answered correctly was 331.5 or 28%. The number of these correct answers ranged from 2 to 16.5 per pupil, with an average of 6.95 and a median of 6. The probable error was ± 1.00 .

The total number of questions incorrectly answered was 139 or 11%. The number of questions incorrectly answered ranged from 0 to 10 per pupil, with an average of 21.92 and a median of 3. The probable error was ± 1.68 .

The total number of questions omitted was 729.5 or 61%. The number of questions omitted ranged from 2 to 22, with an average of 15.13 per pupil and a median of 16. The probable error was $\pm .78$.

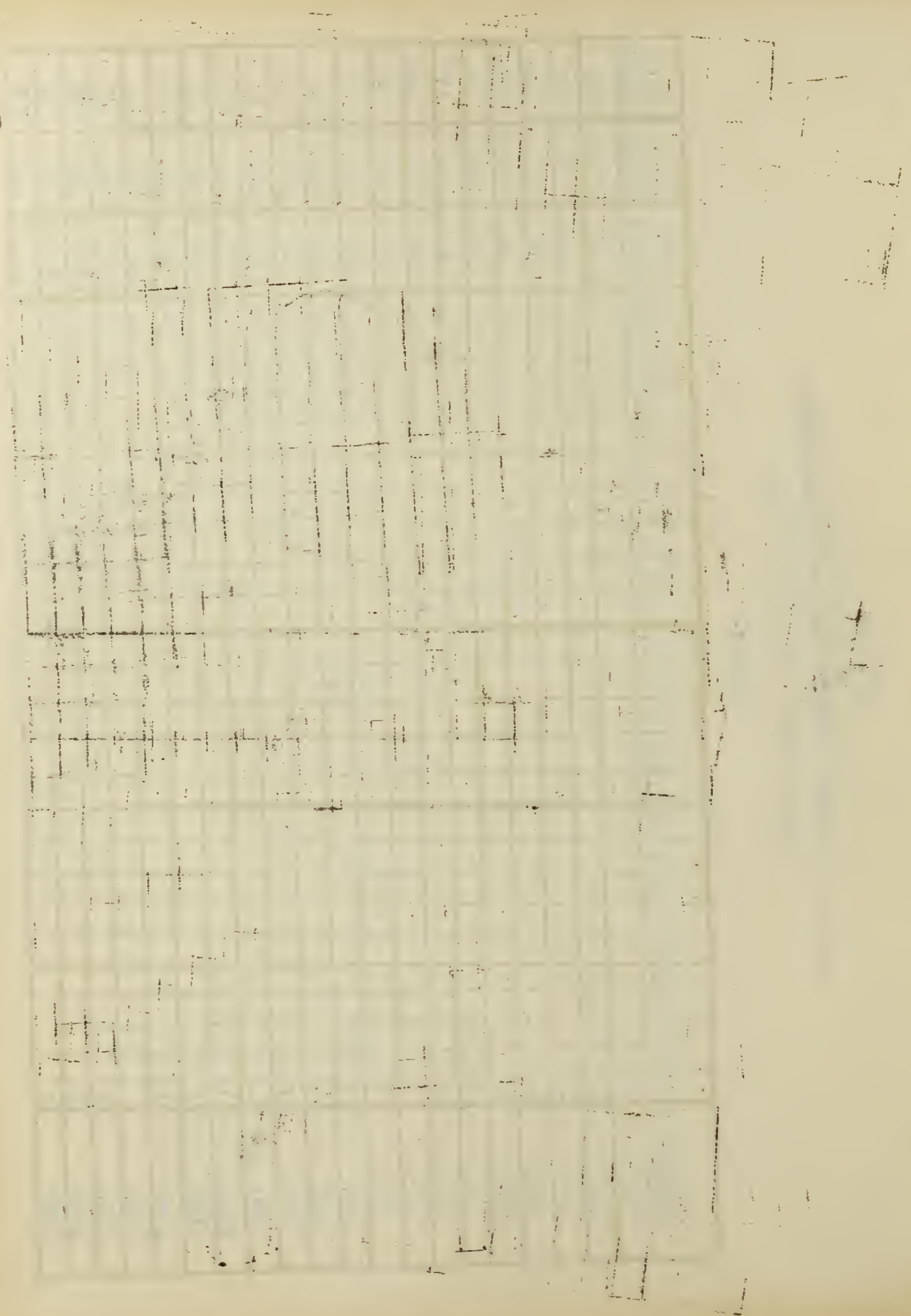


TABLE XI (Continued)

Pupils	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	No. right	No. wrong	No. not complete
(21)	1	1	$\frac{1}{2}$								1	1		1		1		1	1							8 $\frac{1}{2}$	5	11 $\frac{1}{2}$
(22)	1	1	$\frac{1}{2}$									1		1		1		1	1					1		8 $\frac{1}{2}$	8	8 $\frac{1}{2}$
(23)	1		$\frac{1}{2}$					1						1		1										4 $\frac{1}{2}$	16	4 $\frac{1}{2}$
(24)	1									1			1			1		1	1		1					6	11	9
TOTALS	22	2	2 $\frac{1}{2}$	0	0	0	0	1	0	3	4	4	2	7	0	10	0	6	5	1	1	0	0	0	4	74 $\frac{1}{2}$	194	331 $\frac{1}{2}$

SUMMARY

The total number of pupils in this class was 24.

The total number of questions answered correctly was 74.5 or 13%. The number of questions answered correctly ranged from 0 to 8.5 per pupil, with an average of 3.11 per pupil and a median of 2.5. The probable error was $\pm .07$.

The total number of questions answered incorrectly was 194 or 32%. The number of questions incorrectly answered ranged from 2 to 17 per pupil, with an average of 8.08 and a median of 8. The probable error was ± 1.15 .

The total number of questions omitted was 331.5 or 55%. The number of questions omitted ranged from 4.5 to 21 per pupil, with an average of 13.76 and a median of 15. The probable error was $\pm .95$.

The first part of the paper
 is devoted to a general
 description of the
 system of the
 government of the
 country.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360	361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380	381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	400	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438	439	440	441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	457	458	459	460	461	462	463	464	465	466	467	468	469	470	471	472	473	474	475	476	477	478	479	480	481	482	483	484	485	486	487	488	489	490	491	492	493	494	495	496	497	498	499	500	501	502	503	504	505	506	507	508	509	510	511	512	513	514	515	516	517	518	519	520	521	522	523	524	525	526	527	528	529	530	531	532	533	534	535	536	537	538	539	540	541	542	543	544	545	546	547	548	549	550	551	552	553	554	555	556	557	558	559	560	561	562	563	564	565	566	567	568	569	570	571	572	573	574	575	576	577	578	579	580	581	582	583	584	585	586	587	588	589	590	591	592	593	594	595	596	597	598	599	600	601	602	603	604	605	606	607	608	609	610	611	612	613	614	615	616	617	618	619	620	621	622	623	624	625	626	627	628	629	630	631	632	633	634	635	636	637	638	639	640	641	642	643	644	645	646	647	648	649	650	651	652	653	654	655	656	657	658	659	660	661	662	663	664	665	666	667	668	669	670	671	672	673	674	675	676	677	678	679	680	681	682	683	684	685	686	687	688	689	690	691	692	693	694	695	696	697	698	699	700	701	702	703	704	705	706	707	708	709	710	711	712	713	714	715	716	717	718	719	720	721	722	723	724	725	726	727	728	729	730	731	732	733	734	735	736	737	738	739	740	741	742	743	744	745	746	747	748	749	750	751	752	753	754	755	756	757	758	759	760	761	762	763	764	765	766	767	768	769	770	771	772	773	774	775	776	777	778	779	780	781	782	783	784	785	786	787	788	789	790	791	792	793	794	795	796	797	798	799	800	801	802	803	804	805	806	807	808	809	810	811	812	813	814	815	816	817	818	819	820	821	822	823	824	825	826	827	828	829	830	831	832	833	834	835	836	837	838	839	840	841	842	843	844	845	846	847	848	849	850	851	852	853	854	855	856	857	858	859	860	861	862	863	864	865	866	867	868	869	870	871	872	873	874	875	876	877	878	879	880	881	882	883	884	885	886	887	888	889	890	891	892	893	894	895	896	897	898	899	900	901	902	903	904	905	906	907	908	909	910	911	912	913	914	915	916	917	918	919	920	921	922	923	924	925	926	927	928	929	930	931	932	933	934	935	936	937	938	939	940	941	942	943	944	945	946	947	948	949	950	951	952	953	954	955	956	957	958	959	960	961	962	963	964	965	966	967	968	969	970	971	972	973	974	975	976	977	978	979	980	981	982	983	984	985	986	987	988	989	990	991	992	993	994	995	996	997	998	999	1000	1001	1002	1003	1004	1005	1006	1007	1008	1009	1010	1011	1012	1013	1014	1015	1016	1017	1018	1019	1020	1021	1022	1023	1024	1025	1026	1027	1028	1029	1030	1031	1032	1033	1034	1035	1036	1037	1038	1039	1040	1041	1042	1043	1044	1045	1046	1047	1048	1049	1050	1051	1052	1053	1054	1055	1056	1057	1058	1059	1060	1061	1062	1063	1064	1065	1066	1067	1068	1069	1070	1071	1072	1073	1074	1075	1076	1077	1078	1079	1080	1081	1082	1083	1084	1085	1086	1087	1088	1089	1090	1091	1092	1093	1094	1095	1096	1097	1098	1099	1100	1101	1102	1103	1104	1105	1106	1107	1108	1109	1110	1111	1112	1113	1114	1115	1116	1117	1118	1119	1120	1121	1122	1123	1124	1125	1126	1127	1128	1129	1130	1131	1132	1133	1134	1135	1136	1137	1138	1139	1140	1141	1142	1143	1144	1145	1146	1147	1148	1149	1150	1151	1152	1153	1154	1155	1156	1157	1158	1159	1160	1161	1162	1163	1164	1165	1166	1167	1168	1169	1170	1171	1172	1173	1174	1175	1176	1177	1178	1179	1180	1181	1182	1183	1184	1185	1186	1187	1188	1189	1190	1191	1192	1193	1194	1195	1196	1197	1198	1199	1200	1201	1202	1203	1204	1205	1206	1207	1208	1209	1210	1211	1212	1213	1214	1215	1216	1217	1218	1219	1220	1221	12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TABLE XII
SPREAD OF CORRECT ANSWERS FOR EACH OF 99 PUPILS
CENTRAL JUNIOR HIGH SCHOOL, KEENE, N. H.

Grade 8

Pupils	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	No. right	No. wrong	No. not complete
(1)	1	1	$\frac{1}{2}$			1					1	1	1	1		1	1		1						1	$7\frac{1}{2}$	1	$16\frac{1}{2}$
(2)	1										1	1		1				1	1					1	1	5	8	12
(3)	1	1									1	1	1	1					1					1	1	7	2	16
(4)	1							1		1				1										1	1	5	6	14
(5)	1										1	1				1	1	1		1				1		6	4	15
(6)	1								1					1		1										4	4	17
(7)	1										1	1	1	1										1	4	5	16	
(8)	1		$\frac{1}{2}$						1			1	1			1	1			1				1	1	$6\frac{1}{2}$	1	$17\frac{1}{2}$
(9)	1																									1	2	22
(10)	1		$\frac{1}{2}$											1		1	1	1						1	1	$6\frac{1}{2}$	3	$15\frac{1}{2}$
(11)	1										1					1								1	4	3	18	
(12)	1																								1	1	0	24
(13)	1																							1	3	5	17	
(14)	1											1		1											3	10	12	
(15)	1		$\frac{1}{2}$					1		1	1	1	1	1	1	1			1	1						$10\frac{1}{2}$	6	$8\frac{1}{2}$
(16)	1													1										1	3	0	22	
(17)	1	1	$\frac{1}{2}$				1	1	1		1	1				1	1	1	1	1				1	1	$14\frac{1}{2}$	8	$2\frac{1}{2}$
(18)	1																									1	9	15
(19)	1																							1	2	3	20	
(20)	1	1	$\frac{1}{2}$						1					1	1	1	1	1	1	1				1	$10\frac{1}{2}$	5	9	

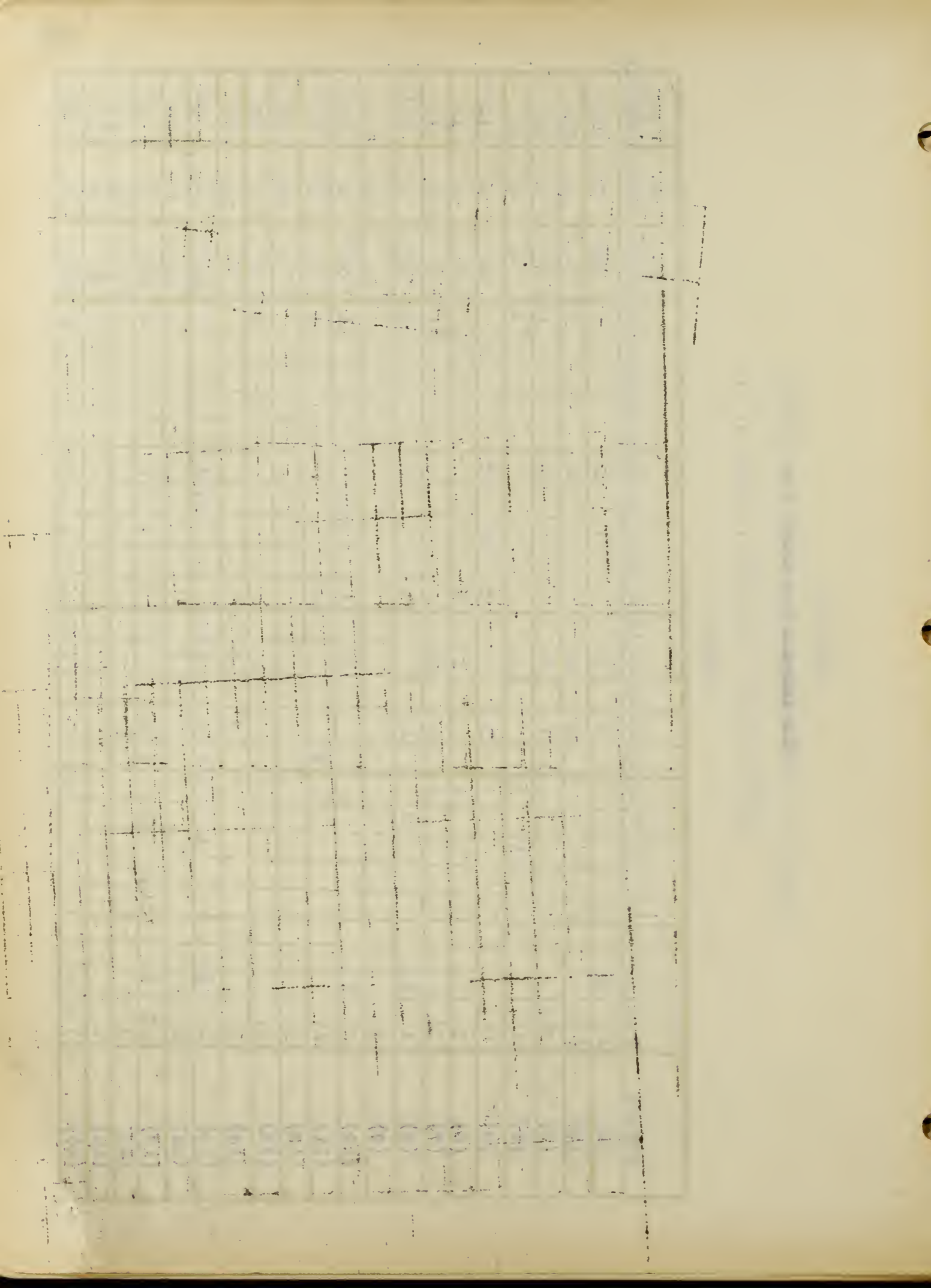


TABLE XII (Continued)

Pupils	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	No. right	No. wrong	No. not complete	
(21)	1						1					1		1		1				1				1		7	5	13	
(22)	1										1		1														3	6	16
(23)	1								1		1	1		1	1	1	1	1	1	1						11	1	13	
(24)	1											1														2	3	20	
(25)	1	$\frac{1}{2}$				1	1	1			1	1		1	1	1	1	1	1	1				1	1	13 $\frac{1}{2}$	5	6 $\frac{1}{2}$	
(26)	1															1			1					1		4	0	21	
(27)	1													1						1					1	5	5	15	
(28)	1										1			1		1	1	1						1		6	5	14	
(29)	1	$\frac{1}{2}$													1			1	1	1				1		5 $\frac{1}{2}$	1 $\frac{1}{2}$	18	
(30)	1	$\frac{1}{2}$							1			1		1	1	1			1					1	1	8 $\frac{1}{2}$	4	12 $\frac{1}{2}$	
(31)	1								1						1	1	1	1	1							6	3	16	
(32)	1									1														1	1	3	1	21	
(33)	1	1	$\frac{1}{2}$						1			1		1	1	1	1	1	1							9 $\frac{1}{2}$	2 $\frac{1}{2}$	13	
(34)	1															1								1		3	3	19	
(35)	1						1													1						3	5	17	
(36)	1	1							1		1	1		1	1	1	1	1	1							10	2	13	
(37)	1											1		1										1	1	4	9	12	
(38)	1													1										1	1	3	9	13	
(39)	1										1						1			1	1			1	1	7	3	15	
(40)	1	$\frac{1}{2}$				1					1		1	1	1	1	1	1	1	1				1	1	11 $\frac{1}{2}$	2	11 $\frac{1}{2}$	

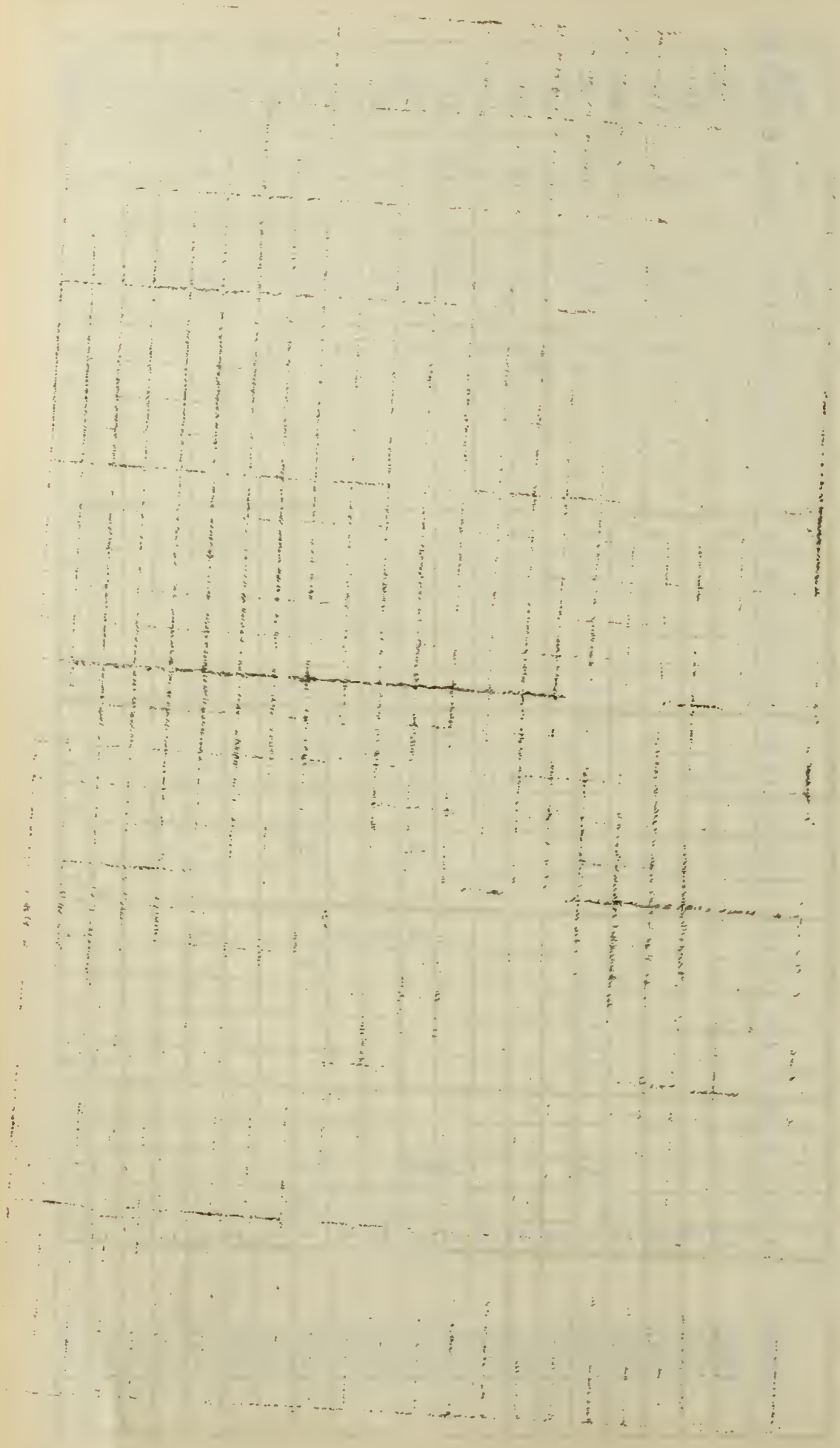


TABLE XII (Continued)

Pupils	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	No. right	No. wrong	No. not complete
(41)	1		$\frac{1}{2}$			1			1				1	1											1	6	10	9
(42)	1											1													1	3	9	13
(43)	1	1	$\frac{1}{2}$				1	1			1	1		1	1	1			1	1						11 $\frac{1}{2}$	4	9 $\frac{1}{2}$
(44)	1	1	$\frac{1}{2}$										1	1	1	1	1									4 $\frac{1}{2}$	4 $\frac{1}{2}$	16
(45)	1	1	$\frac{1}{2}$			1	1			1		1	1	1	1	1	1	1	1	1						13 $\frac{1}{2}$	9	2 $\frac{1}{2}$
(46)	1	1	$\frac{1}{2}$			1		1	1			1	1	1	1	1	1	1	1	1				1	1	12 $\frac{1}{2}$	$\frac{1}{2}$	12
(47)	1								1			1	1	1	1	1										5	5	15
(48)	1								1			1		1											1	5	10	10
(49)	1								1	1	1	1	1	1	1	1	1		1	1				1	10	6	9	
(50)	1		$\frac{1}{2}$				1		1	1	1	1	1	1	1			1	1	1						10 $\frac{1}{2}$	5	9 $\frac{1}{2}$
(51)												1	1	1	1									1	3	3	19	
(52)	1											1							1								9	13
(53)	1								1			1	1			1								1	5	3	17	
(54)	1		$\frac{1}{2}$					1	1			1	1	1	1	1	1			1						7 $\frac{1}{2}$	0	17 $\frac{1}{2}$
(55)	1													1													2	21
(56)	1		$\frac{1}{2}$					1				1	1			1	1	1	1	1				1	1	8 $\frac{1}{2}$	1	15 $\frac{1}{2}$
(57)	1											1				1										3	3	19
(58)	1											1				1			1							4	3	18
(59)	1		$\frac{1}{2}$								1	1	1	1	1	1	1	1	1	1				1	11 $\frac{1}{2}$	1 $\frac{1}{2}$	12	
(60)	1				1	1							1	1	1	1	1	1	1	1			1	1	1	10	1	14

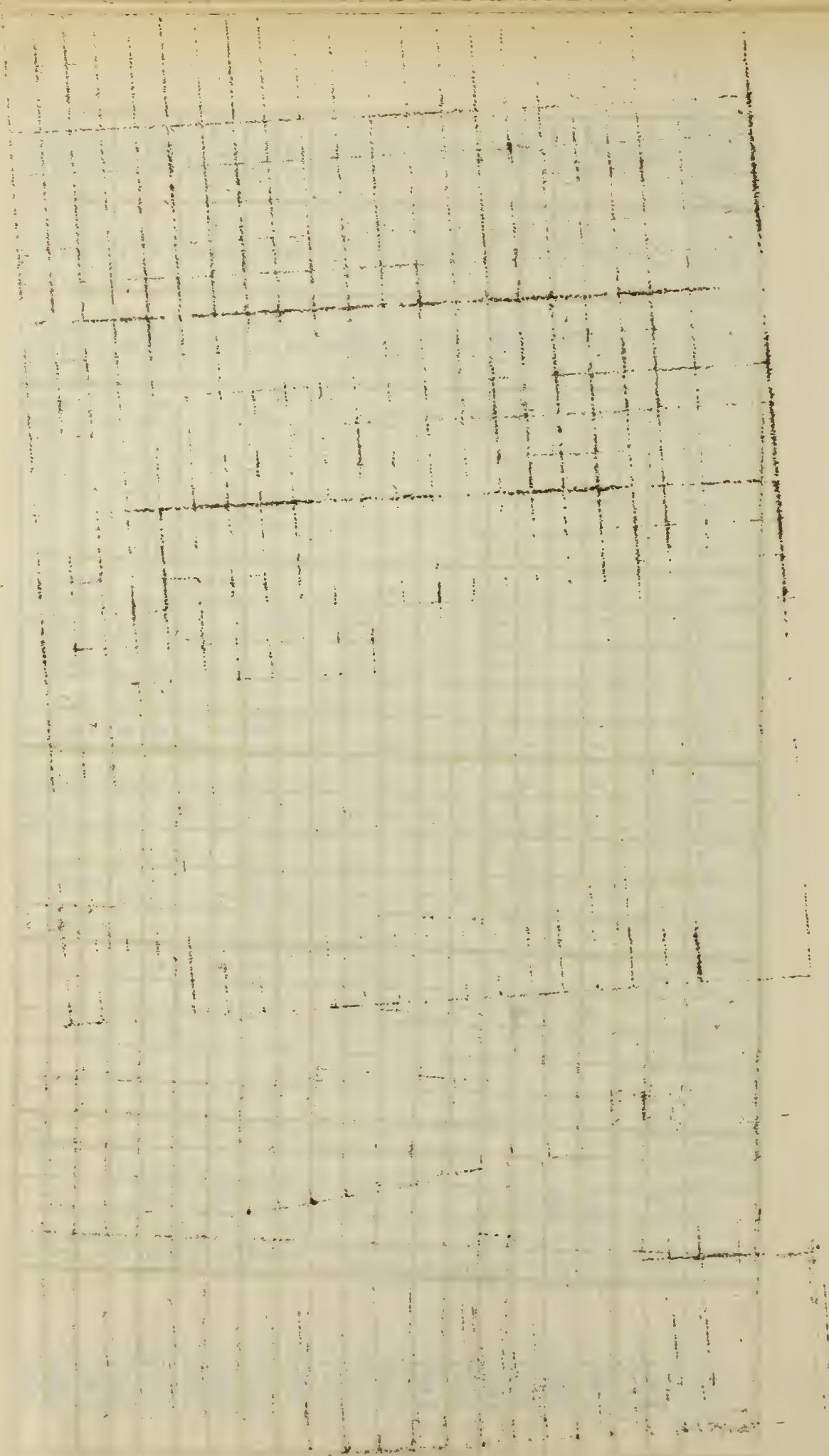


TABLE XII (Continued)

Pupil	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	No. right	No. wrong	No. not complete	
(61)	1										1			1						1					1	5	5	10	
(62)	1							1						1			1	1	1					1		1	17		
(63)	1										1			1		1								1		3	17		
(64)	1														1											2	21		
(65)	1																								1	1	23		
(66)	1									1		1		1		1	1	1						1		4	12		
(67)	1							1		1				1		1		1	1	1				1		6	9		
(68)	1									1		1		1		1									1	3	16		
(69)	1		1	1		1		1	1		1	1	1	1	1	1	1	1	1	1				1		0	8		
(70)	1					1		1			1	1		1	1	1	1	1	1	1				1		2	11		
(71)	1													1											1	3	0	22	
(72)	1									1																4	19		
(73)	1																							1		1	22		
(74)	1											1								1						2	19		
(75)	1		1								1			1	1	1			1						1	7½	2	15½	
(76)	1	1							1	1	1	1				1		1							1	10	7	8	
(77)	1	1	1			1	1			1		1	1	1	1	1	1	1	1	1				1		4½	6		
(78)	1	1	1							1	1	1		1	1	1	1		1	1					1	11½	1½	12	
(79)	1		1			1			1	1	1			1	1	1	1	1	1	1				1	1	13½	3	8½	
(80)	1								1			1		1		1				1						6	3	16	

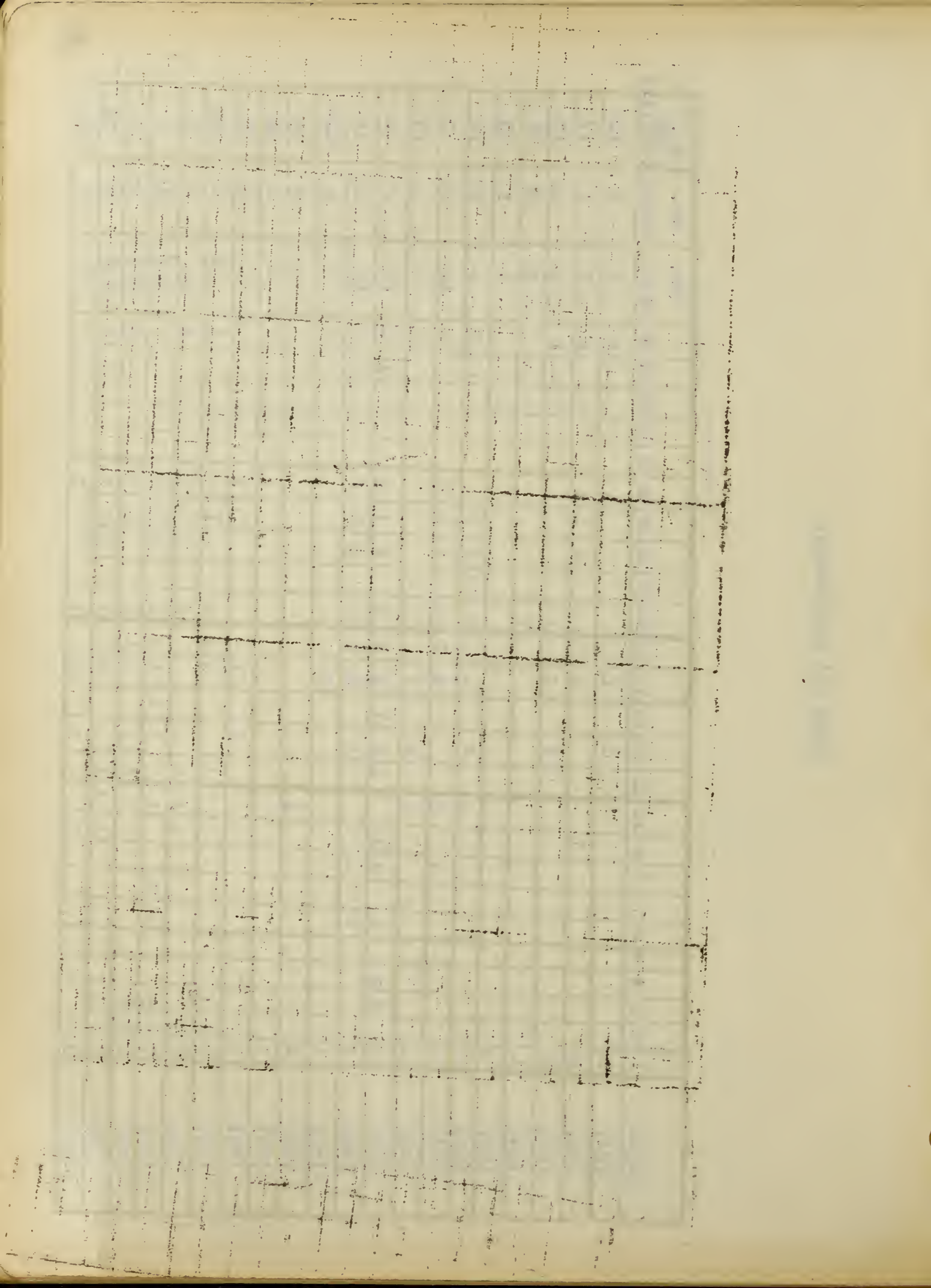


TABLE XII (Continued)

Pupils	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	No. right	No. wrong	No. not complete
(81)	1	1	$\frac{1}{2}$					1	1		1			1		1		1	1	1					1	11 $\frac{1}{2}$	2 $\frac{1}{2}$	11
(82)	1							1										1		1					1	5	7	13
(83)	1	1	$\frac{1}{2}$			1		1		1	1	1		1		1		1	1	1				1	13 $\frac{1}{2}$	3	8 $\frac{1}{2}$	
(84)	1													1		1				1						4	2	19
(85)	1											1		1		1										4	3	18
(86)	1																									1	1	23
(87)	1		$\frac{1}{2}$			1	7	1	1					1	1	1		1	1	1				1	11 $\frac{1}{2}$	3	10 $\frac{1}{2}$	
(88)	1													1		1										3	6	16
(89)	1	1					1	1	1			1		1		1		1	1	1				1	12	3	10	
(90)	1		$\frac{1}{2}$							1										1					1	4 $\frac{1}{2}$	4	16 $\frac{1}{2}$
(91)	1		$\frac{1}{2}$					1		1	1	1		1		1			1	1				1	11 $\frac{1}{2}$	2	11 $\frac{1}{2}$	
(92)	1		$\frac{1}{2}$					1		1	1	1		1		1		1	1	1				1	10 $\frac{1}{2}$	11	3 $\frac{1}{2}$	
(93)	1																								1	2	3	20
(94)	1															1				1						3	6	16
(95)	1		$\frac{1}{2}$					1	1	1	1	1				1		1	1	1				1	10 $\frac{1}{2}$	4	10 $\frac{1}{2}$	
(96)	1					1	1	1						1	1	1			1	1			1	1	10	2	13	
(97)	1																									1	3	21
(98)	1		$\frac{1}{2}$					1				1		1		1										5 $\frac{1}{2}$	6	13 $\frac{1}{2}$
(99)	1		$\frac{1}{2}$							1		1		1		1	1	1	1	1				1	10 $\frac{1}{2}$	6	8 $\frac{1}{2}$	

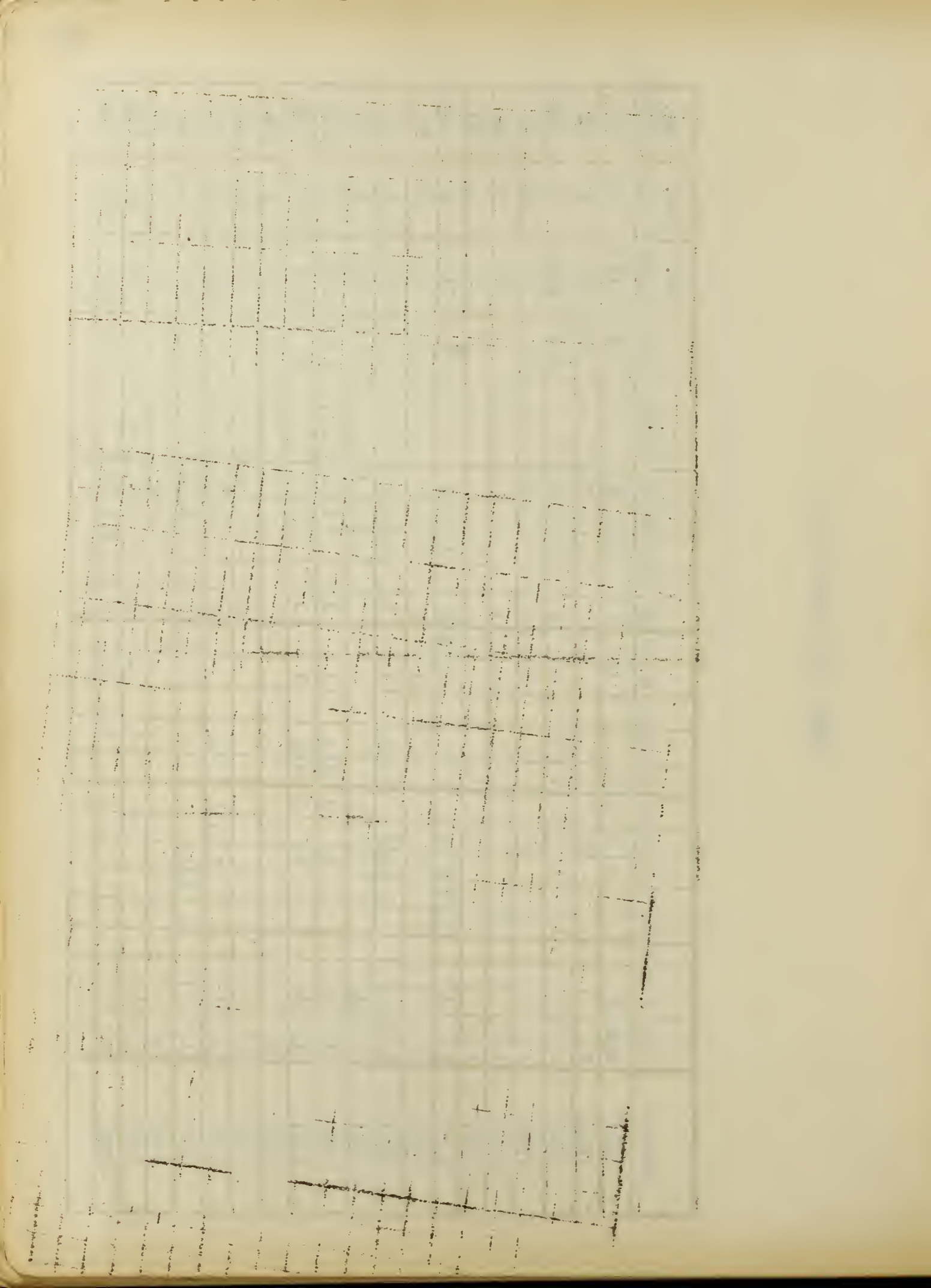


TABLE XII (Continued)

Pupils	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	No. right	No. wrong	No. not complete
TOTALS	98	14	17	2	1	16	6	17	22	31	25	52	4	65	24	60	23	41	50	0	1	0	11	63	65	05	384.5	1440

SUMMARY

The total number of pupils in the class was 99.

The total number of questions correctly answered was 6505.5 or 25%. The number of questions answered correctly ranged from 1 to 17 per pupil, with an average of 6.41 and a median of 5.5. The probable error was $\pm .90$.

The total number of questions incorrectly answered was 384.5 or 16%. The number of questions incorrectly answered ranged from 0 to 11 per pupil, with an average of 3.77 and a median of 3. The probable error was $\pm .75$.

The total number of questions omitted was 1440 or 59%. The number of questions omitted ranged from 2.5 to 24, with an average of 14.82 and a median of 15. The probable error was $\pm .06$.

TABLE XIII

SPREAD OF CORRECT ANSWERS FOR EACH OF 96 PUPILS

BERRY O'KELLY SCHOOL, METHOD, N. C.

Grade 8

Pupils	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	No. right	No. wrong	No. not complete
(1)	1		$\frac{1}{2}$									1								1						$3\frac{1}{2}$	3	$18\frac{1}{2}$
(2)	1		$\frac{1}{2}$									1		1			1			1				1		$6\frac{1}{2}$	2	$16\frac{1}{2}$
(3)	1											1								1				1		4	6	15
(4)	1											1		1						1						4	2	19
(5)	1		$\frac{1}{2}$											1					1							$4\frac{1}{2}$	1	$19\frac{1}{2}$
(6)	1											1														2	1	22
(7)	1											1														3	5	17
(8)	1											1		1												4	1	20
(9)	1										1	1		1							1				1	5	1	19
(10)	1																									1	1	23
(11)	1											1		1						1						4	5	16
(12)	1											1	1													3	3	19
(13)	1							1			1	1	1			1				1					1	9	0	16
(14)	1															1									1	3	3	19
(15)	1	$\frac{1}{2}$	$\frac{1}{2}$										1			1										$5\frac{1}{2}$	4	$15\frac{1}{2}$
(16)	1		$\frac{1}{2}$																	1						$2\frac{1}{2}$	4	$18\frac{1}{2}$
(17)	1											1												1		3	1	21
(18)	1																									1	7	17
(19)	1											1												1		4	1	20
(20)	1											1		1						1						4	3	18

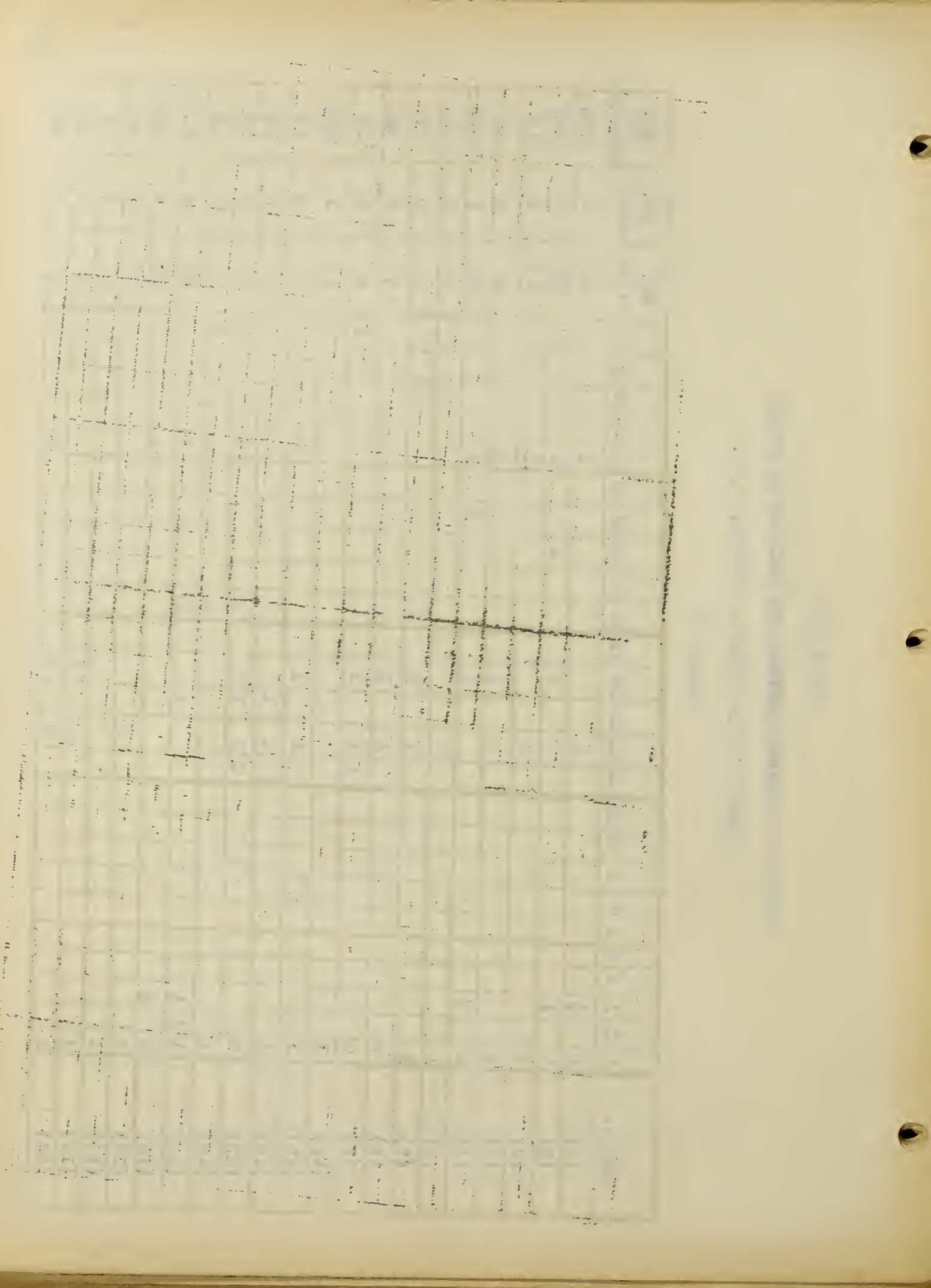


TABLE XIII (Continued)

Pupils	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	No. right	No. wrong	No. not complete
(21)	1		$\frac{1}{2}$						1		1	1		1				1							1	$6\frac{1}{2}$	3	$15\frac{1}{2}$
(22)												1				1		1								3	10	12
(23)	1																									2	5	18
(24)	1		$\frac{1}{2}$								1	1				1		1		1						$5\frac{1}{2}$	10	$9\frac{1}{2}$
(25)	1		$\frac{1}{2}$									1				1		1							1	$6\frac{1}{2}$	1	$17\frac{1}{2}$
(26)	1		$\frac{1}{2}$					1	1	1		1	1	1		1		1	1		1				1	$12\frac{1}{2}$	4	$8\frac{1}{2}$
(27)	1		$\frac{1}{2}$							1		1		1											1	5	3	17
(28)											1	1				1										2	6	17
(29)	1		1											1		1			1	1					1	7	2	16
(30)	1	1	$\frac{1}{2}$								1			1												$4\frac{1}{2}$	8	$12\frac{1}{2}$
(31)	1		$\frac{1}{2}$											1		1		1			1					$5\frac{1}{2}$	6	$13\frac{1}{2}$
(32)	1	1	1													1									1	4	1	20
(33)	1								1					1												3	7	15
(34)	1		1													1					1					4	5	16
(35)	1	1					1	1								1					1					7	9	9
(36)	1	1	1						1			1				1		1			1				1	9	2	14
(37)	1	1	$\frac{1}{2}$							1						1		1								$5\frac{1}{2}$	1	$18\frac{1}{2}$
(38)	1											1				1										3	6	16
(39)	1											1									1					4	1	20
(40)	1											1								1						3	3	19

TABLE XIII (Continued)

Pupils	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	No. right	No. wrong	No. not complete
(41)	1																									1	2	22
(42)	1	1	1									1		1		1		1			1			1		8½	3	13½
(43)	1																									1	11	13
(44)	1		1									1		1		1				1		1				7½	7	10½
(45)	1										1		1													3	5	17
(46)	1																									1	2	22
(47)	1													1												2	4	19
(48)	1													1												2	2	21
(49)	1																				1					2	0	23
(50)	1																									1	2	22
(51)	1																									1	1	23
(52)	1																									2	2	22
(53)	1																				1					2	2	21
(54)	1																							1		2	5	18
(55)	1													1												2	4	19
(56)	1													1												1	0	24
(57)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			1	1				1	1	1	3	21
(58)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			1	1	1						20	1	4
(59)	1																									17	2	6
(60)	1																									1	0	24
																										1	0	24

TABLE XIII (Continued)

Pupils	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	No. right	No. wrong	No. not complete
(61)	1																									1	0	24
(62)	1																								1		0	23
(63)	1													1												2	1	22
(64)	1						1																		1	3	3	19
(65)	1											1														2	2	21
(66)	1																			1					1	3	3	19
(67)	1																							1		2	0	23
(68)	1																			1						2	7	16
(69)	1																									1	3	21
(70)	1																									1	1	23
(71)	1																									1	1	23
(72)	1																									1	0	24
(73)																										0	4	21
(74)																										0	1	24
(75)	1																									1	0	24
(76)	1											1		1												3	0	22
(77)	1																								1		1	22
(78)	1	1	1																							3	1	21
(79)	1																								1		3	20
(80)	1																									1	1	23

TABLE XIII (Continued)

Pupils	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	No. right	No. wrong	No. not complete
TOTALS	91	9	16½	2	0	2	4	6	4	7	5	42	7	33	2	30	0	13	10	4	31	0	1	1	31	341½	269	1788½

SUMMARY

The total number of pupils in the class was 96.

The total number of questions answered correctly was 342 or 14%. The number of questions answered correctly ranged from 0 to 20 per pupil, with an average of 3.56 and a median of 2. The probable error was $\pm .21$.

The total number of questions incorrectly answered was 269 or 11%. The number of questions answered incorrectly ranged from 0 to 11, with an average of 2.62 and a median of 2. The probable error was $\pm .21$.

The total number of questions omitted was 1789 or 75%. The number omitted ranged from 4 to 24 per pupil, with an average of 18.07 and a median of 18.5. The probable error was $\pm .01$.

TABLE XIV

SPREAD OF CORRECT ANSWERS FOR EACH OF 81 PUPILS

WASHINGTON SCHOOL, RALEIGH, N. C.

Grade 8

Pupils	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	No. right	No. wrong	No. not complete
(1)	1	1	1	1	1							1	1	1	1	1	1	1	1	1					1	15	4	6
(2)	1	1	1	1	1																					4½	1	19½
(3)	1	1	1			1		1	1			1	1			1	1		1	1						12	7	6
(4)	1	1	1	1	1	1		1	1			1	1	1	1	1	1	1	1	1						16	7	2
(5)	1	1	1	1	1		1	1	1			1	1	1	1	1	1	1	1	1						17	3	5
(6)	1	1	1	1	1		1	1	1	1		1	1	1	1	1	1	1	1	1						18	4	3
(7)	1	1	1	1			1	1	1			1	1	1	1	1	1	1	1	1				1		17	5	3
(8)	1	1	1			1						1	1	1			1	1	1	1						12	3	10
(9)	1	1	1	1	1	1						1	1	1	1			1						1		12	3	10
(10)	1	1	1	1	1			1	1				1	1	1	1	1	1	1	1					1	16	4	5
(11)	1	1	1	1		1		1	1				1	1	1	1	1	1	1	1						16	5	4
(12)	1	1	1	1	1		1	1	1			1		1	1											8½	4	12½
(13)	1	1																								2	0	23
(14)	1	1	1	1	1	1		1		1		1	1	1	1	1		1	1	1						16	1	8
(15)	1	1	1	1	1	1	1	1	1				1	1	1	1		1	1	1		1				18	2	5
(16)	1	1	1			1	1	1		1	1	1	1	1	1	1	1	1	1	1						17	5	3
(17)	1	1	1	1	1	1			1	1	1	1	1	1	1	1			1	1						16	4	5
(18)	1	1	1	1	1			1			1	1	1	1	1	1		1	1	1						16	6	3
(19)	1	1	1	1		1			1	1			1	1	1	1	1	1	1	1		1				14½	4	8½
(20)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1						19	3	3

TABLE XIV (Continued)

Pupils	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	No. right	No. wrong	No. not complete
(21)	1	1	1	1	1		1	1				1	1	1	1	1	1	1	1	1				1	17	4	4	
(22)	1	1	1	1	1	1	1	1	1			1	1	1	1	1	1		1	1					17	5	3	
(23)	1	1	1	1	1	1	1	1	1			1	1	1	1	1	1	1	1	1					17	5	3	
(24)	1	1	1	1								1	1	1	1	1			1						9	4	12	
(25)	1	1	1	1	1				1	1	1	1	1	1	1	1	1	1	1	1					17	7	1	
(26)	1	1	1	1	1							1	1	1	1	1									9	4	12	
(27)	1	1	1	1	1	1		1	1			1	1	1	1	1	1		1	1					15	10	1	
(28)	1	1	1	1	1		1		1		1	1	1	1	1	1	1	1	1	1					15	4	5	
(29)	1	1	1		1		1			1	1	1	1	1	1	1			1	1					14	6	5	
(30)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		1			21	5	0	
(31)	1	1	1	1		1				1		1	1	1			1	1							1	10	15	
(32)	1	1	$\frac{1}{2}$	1	1					1			1		1	1	1	1	1	1				1	13 $\frac{1}{2}$	7 $\frac{1}{2}$	4	
(33)	1	1	1	1		1			1	1	1		1	1	1	1	1	1	1	1				1	16	2	7	
(34)	1	1	$\frac{1}{2}$	1	1								1				1		1	1				1	9 $\frac{1}{2}$	1	14 $\frac{1}{2}$	
(35)	1	1							1							1	1	1	1	1					5	10	10	
(36)	1	1	1	1	1		1		1						1	1	1	1	1	1				1	14	11	0	
(37)	1	1	$\frac{1}{2}$	1	1			1	1							1	1	1	1					1	11 $\frac{1}{2}$	4	9 $\frac{1}{2}$	
(38)	1	1	$\frac{1}{2}$	1	1			1	1			1	1	1		1	1	1	1	1					14 $\frac{1}{2}$	7 $\frac{1}{2}$	3	
(39)	1	1	$\frac{1}{2}$		1							1	1	1		1			1	1					9 $\frac{1}{2}$	8	7 $\frac{1}{2}$	
(40)	1	1	1	1	1				1			1	1	1	1	1	1	1	1	1					15	5	5	

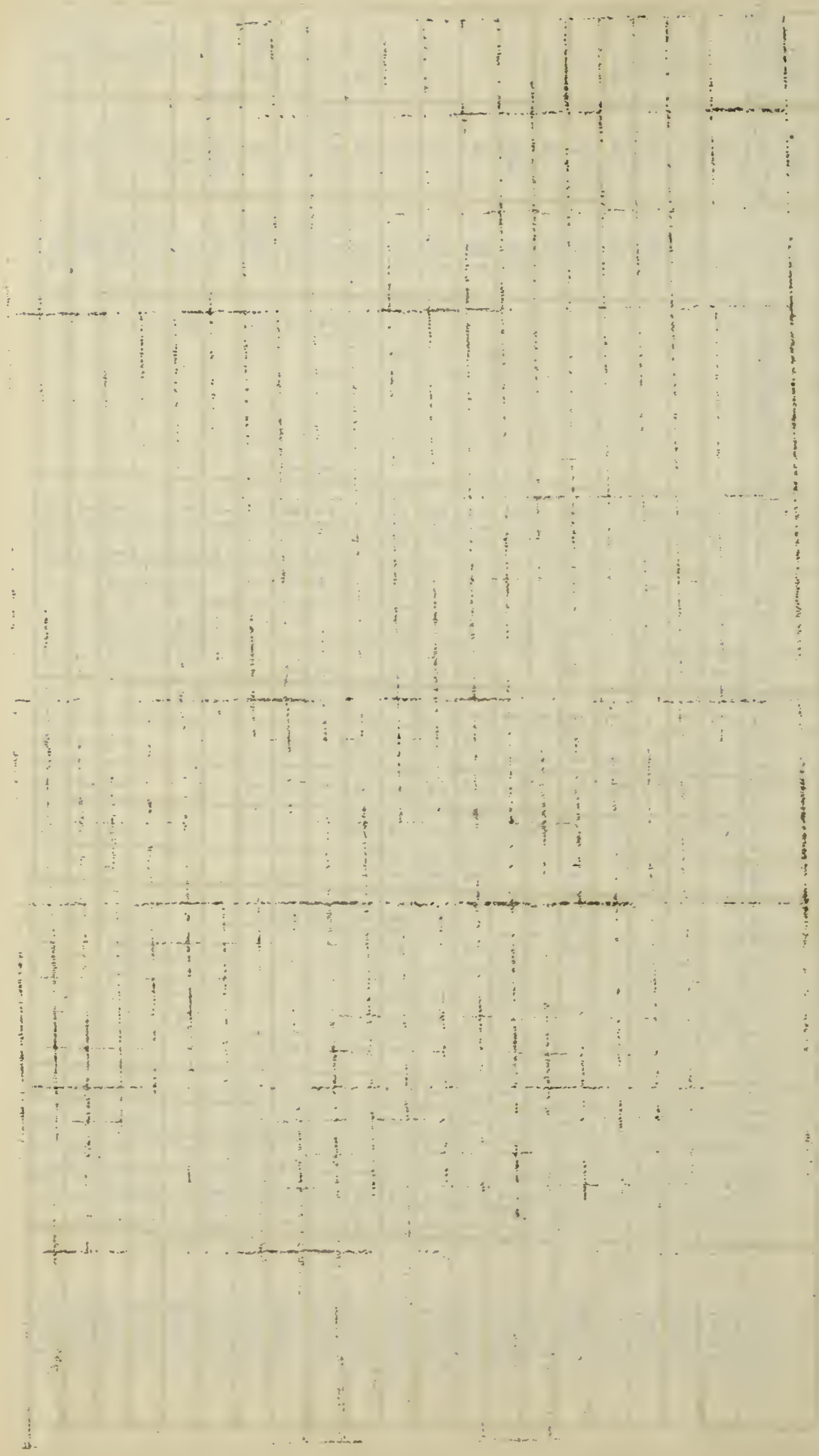


TABLE XIV (Continued)

Pupils	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	No. right	No. wrong	No. not complete
(41)	1	1	1	1				1				1	1	1	1	1		1	1	1						13	9	3
(42)	1	1	1		1	1	1	1	1			1	1	1	1			1	1	1	1				1	17	4	4
(43)	1	1	1	1	1	1			1			1	1		1	1		1	1	1	1					15	2	8
(44)	1	1	1	1	1	1						1	1		1	1		1	1	1	1		1			14	3	8
(45)	1	1	1	1	1							1		1	1	1		1	1	1				1		12	3	10
(46)	1	1	1	1	1				1			1	1	1	1	1		1	1							13	3	9
(47)	1	1	1	1	1		1	1	1	1		1	1	1	1	1	1		1	1						17	5	3
(48)	1	1	1			1	1	1	1	1	1	1	1	1	1	1	1	1					1	1		18	3	4
(49)	1	1	1	1	1		1	1	1			1	1	1	1	1	1	1	1	1						17	2	6
(50)	1				1	1					1	1		1	1				1							7	8	10
(51)	1	1	1			1							1	1				1							1	8 $\frac{1}{2}$	5	11 $\frac{1}{2}$
(52)	1	1	1			1	1			1	1	1	1	1	1	1	1	1	1	1						17	2	6
(53)	1	1	1	1	1	1		1	1			1	1	1	1	1	1	1	1	1					1	17	6	2
(54)	1	1	1	1			1	1	1	1		1	1	1	1	1	1	1	1						1	17	8	0
(55)	1	1	1	1	1	1	1	1	1			1		1	1	1	1	1	1	1					1	18	7	0
(56)	1	1	1	1	1	1	1	1	1	1		1	1	1	1	1	1	1	1	1					1	20	4	1
(57)	1	1	1	1	1		1	1	1				1	1	1	1	1	1	1	1					1	13	4	8
(58)	1	1	1	1	1	1		1	1				1			1		1		1					1	12	5	8
(59)	1	1	1	1	1	1	1		1	1		1		1	1	1	1	1	1	1						15 $\frac{1}{2}$	7	2 $\frac{1}{2}$
(60)	1	1	1	1	1	1			1	1		1	1	1	1	1	1		1	1						13	7	5

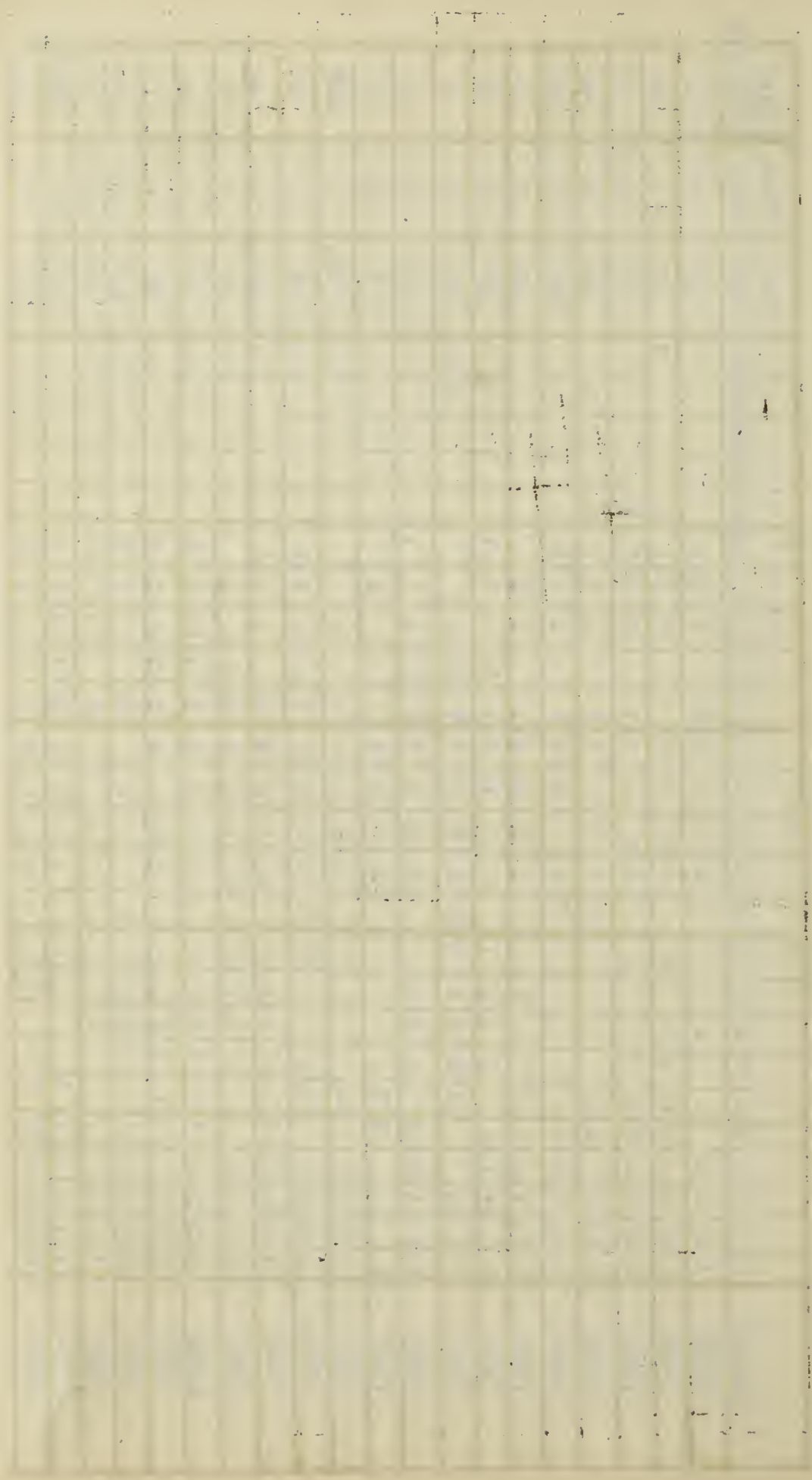


TABLE XIV (Continued)

Pupils	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	No. right	No. wrong	No. complete
(61)	1	1	$\frac{1}{2}$	1				1				1	1	1		1	1	1	1	1						13 $\frac{1}{2}$	8	3 $\frac{1}{2}$
(62)	1	1	$\frac{1}{2}$	1	1	1	1		1		1	1	1	1	1				1	1						14 $\frac{1}{2}$	8	2 $\frac{1}{2}$
(63)	1	1	1	1	1	1	1					1	1	1	1	1	1	1	1	1						14	6	5
(64)	1	1	1	1	1				1	1	1	1	1	1	1											12	4	9
(65)	1	1	1	1		1	1		1	1	1	1	1	1	1	1	1	1	1	1			1			19	5	1
(66)	1	1	1	1	1						1	1	1	1	1									1		10	3	12
(67)	1	1	$\frac{1}{2}$	1						1	1	1	1	1	1	1	1	1	1	1						13 $\frac{1}{2}$	9	2 $\frac{1}{2}$
(68)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			1			19	4	2
(69)	1	1	1	1	1					1		1	1	1	1			1		1						12	9	5
(70)	1	1	1	1	1				1			1	1	1	1	1			1	1						13	6	6
(71)	1	1	1	1	1							1	1	1	1											9	4	12
(72)	1	1	1	1	1	1	1	1	1	1		1	1	1	1	1	1	1	1	1						18	5	2
(73)	1	1	1									1	1	1	1											7	3	15
(74)	1	1	1	1	1	1		1		1		1	1	1		1	1		1	1			1			16	8	1
(75)	1	1	1	1	1	1	1	1	1	1		1	1	1	1		1									14	9	2
(76)	1	1	1	1	1		1					1	1	1	1	1	1	1	1	1						14	6	5
(77)	1	1	1	1	1							1	1	1	1					1						10	5	10
(78)	1	1	$\frac{1}{2}$	1					1	1	1	1	1	1	1	1	1	1	1	1						13 $\frac{1}{2}$	9	2 $\frac{1}{2}$
(79)	1	1	1	1	1							1	1	1	1											10	4	11
(80)	1	1	$\frac{1}{2}$		1	1						1	1	1	1	1	1	1	1	1						12 $\frac{1}{2}$	11	1 $\frac{1}{2}$

TABLE XIV (Continued)

[illegible]

SUMMARY

The total number of pupils in the class was 81.

The total number of pupils in the class was 81.
The total number of questions answered correctly was 1135 or 56%. The number answered correctly ranged from 2 to 21 per pupil, with an average of 13.99 and a median of 14.5. The probable error was ± 1.18 .

The total number of incorrect answers was 465 or 23%. The number of questions incorrectly answered ranged from 0 to 11 with an average of 5.72 and a median of 5. The probable error was ± 1.18 .

The total number of questions omitted was 425 or 21%. The number of questions omitted ranged from 0 to 23, with an average of 5.24 and a median of 5. The probable error was ± 1.34 .

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360	361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380	381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	400	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438	439	440	441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	457	458	459	460	461	462	463	464	465	466	467	468	469	470	471	472	473	474	475	476	477	478	479	480	481	482	483	484	485	486	487	488	489	490	491	492	493	494	495	496	497	498	499	500	501	502	503	504	505	506	507	508	509	510	511	512	513	514	515	516	517	518	519	520	521	522	523	524	525	526	527	528	529	530	531	532	533	534	535	536	537	538	539	540	541	542	543	544	545	546	547	548	549	550	551	552	553	554	555	556	557	558	559	560	561	562	563	564	565	566	567	568	569	570	571	572	573	574	575	576	577	578	579	580	581	582	583	584	585	586	587	588	589	590	591	592	593	594	595	596	597	598	599	600	601	602	603	604	605	606	607	608	609	610	611	612	613	614	615	616	617	618	619	620	621	622	623	624	625	626	627	628	629	630	631	632	633	634	635	636	637	638	639	640	641	642	643	644	645	646	647	648	649	650	651	652	653	654	655	656	657	658	659	660	661	662	663	664	665	666	667	668	669	670	671	672	673	674	675	676	677	678	679	680	681	682	683	684	685	686	687	688	689	690	691	692	693	694	695	696	697	698	699	700	701	702	703	704	705	706	707	708	709	710	711	712	713	714	715	716	717	718	719	720	721	722	723	724	725	726	727	728	729	730	731	732	733	734	735	736	737	738	739	740	741	742	743	744	745	746	747	748	749	750	751	752	753	754	755	756	757	758	759	760	761	762	763	764	765	766	767	768	769	770	771	772	773	774	775	776	777	778	779	780	781	782	783	784	785	786	787	788	789	790	791	792	793	794	795	796	797	798	799	800	801	802	803	804	805	806	807	808	809	810	811	812	813	814	815	816	817	818	819	820	821	822	823	824	825	826	827	828	829	830	831	832	833	834	835	836	837	838	839	840	841	842	843	844	845	846	847	848	849	850	851	852	853	854	855	856	857	858	859	860	861	862	863	864	865	866	867	868	869	870	871	872	873	874	875	876	877	878	879	880	881	882	883	884	885	886	887	888	889	890	891	892	893	894	895	896	897	898	899	900	901	902	903	904	905	906	907	908	909	910	911	912	913	914	915	916	917	918	919	920	921	922	923	924	925	926	927	928	929	930	931	932	933	934	935	936	937	938	939	940	941	942	943	944	945	946	947	948	949	950	951	952	953	954	955	956	957	958	959	960	961	962	963	964	965	966	967	968	969	970	971	972	973	974	975	976	977	978	979	980	981	982	983	984	985	986	987	988	989	990	991	992	993	994	995	996	997	998	999	1000	1001	1002	1003	1004	1005	1006	1007	1008	1009	1010	1011	1012	1013	1014	1015	1016	1017	1018	1019	1020	1021	1022	1023	1024	1025	1026	1027	1028	1029	1030	1031	1032	1033	1034	1035	1036	1037	1038	1039	1040	1041	1042	1043	1044	1045	1046	1047	1048	1049	1050	1051	1052	1053	1054	1055	1056	1057	1058	1059	1060	1061	1062	1063	1064	1065	1066	1067	1068	1069	1070	1071	1072	1073	1074	1075	1076	1077	1078	1079	1080	1081	1082	1083	1084	1085	1086	1087	1088	1089	1090	1091	1092	1093	1094	1095	1096	1097	1098	1099	1100	1101	1102	1103	1104	1105	1106	1107	1108	1109	1110	1111	1112	1113	1114	1115	1116	1117	1118	1119	1120	1121	1122	1123	1124	1125	1126	1127	1128	1129	1130	1131	1132	1133	1134	1135	1136	1137	1138	1139	1140	1141	1142	1143	1144	1145	1146	1147	1148	1149	1150	1151	1152	1153	1154	1155	1156	1157	1158	1159	1160	1161	1162	1163	1164	1165	1166	1167	1168	1169	1170	1171	1172	1173	1174	1175	1176	1177	1178	1179	1180	1181	1182	1183	1184	1185	1186	1187	1188	1189	1190	1191	1192	1193	1194	1195	1196	1197	1198	1199	1200	1201	1202	1203	1204	1205	1206	1207	1208	1209	1210	1211	1212	1213	1214	1215	1216	1217	1218	1219	1220	1221	12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TABLE XV (Continued)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	No. right	No. wrong	No not complete
Pupils	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25			
(
TOTALS	15	0	1	0	0	0	0	0	0	0	0	4	0	5	0	0	0	0	0	0	9	0	0	0	0	34	37	304

SUMMARY

The total number of pupils in the class was 15.

The total number of questions correctly answered was 34 or 9%. The number of correct answers ranged from 1 to 4.5 per pupil, with an average of 2.36 and a median of 2. The probable error was .80.

The total number of questions incorrectly answered was 37 or 10%. The incorrect answers ranged from 1 to 4 per pupil, with an average of 2.47 and a median of 2. The probable error was .89.

The number of questions omitted was 304 or 81%. The number of questions omitted ranged from 17 to 22, with an average of 20.27 and a median of 20. The probable error was 1.88.

Date		Description		Amount	
1900	Jan 1	Balance		100.00	
1900	Jan 15	Received from A. B.		50.00	
1900	Feb 1	Received from C. D.		25.00	
1900	Mar 1	Received from E. F.		75.00	
1900	Apr 1	Received from G. H.		100.00	
1900	May 1	Received from I. J.		150.00	
1900	Jun 1	Received from K. L.		200.00	
1900	Jul 1	Received from M. N.		250.00	
1900	Aug 1	Received from O. P.		300.00	
1900	Sep 1	Received from Q. R.		350.00	
1900	Oct 1	Received from S. T.		400.00	
1900	Nov 1	Received from U. V.		450.00	
1900	Dec 1	Received from W. X.		500.00	
1900	Dec 31	Total		2500.00	

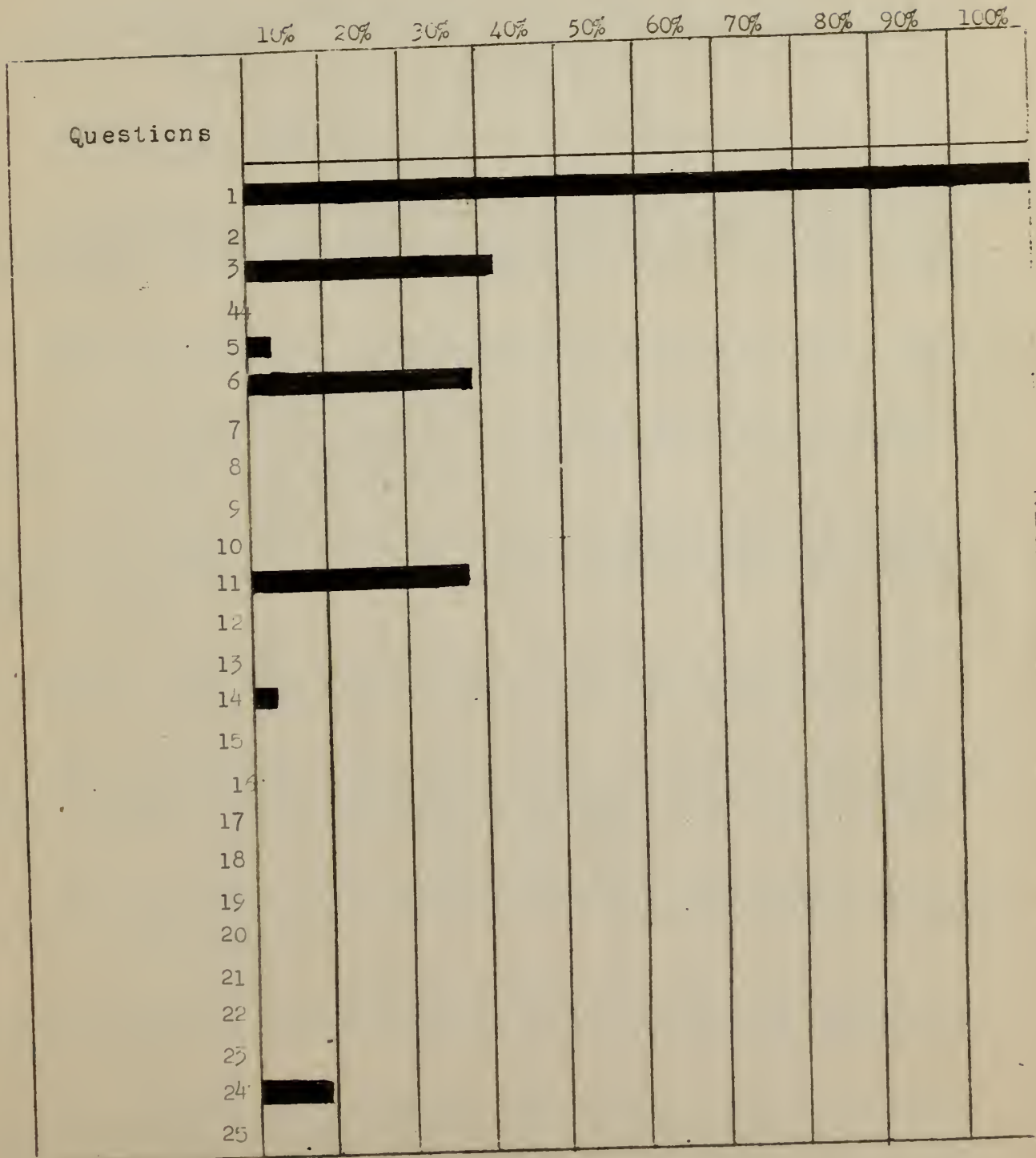
In order to make it simpler to read the graphic representations of the distribution of the percentages of correct answers the original questionnaire was revised according to the descending order of percentages of correct answers given to each question by the whole group. A copy of the revised questionnaire will be found in the appendix (p. 135). The summary of percentages correct for the entire group of 670 pupils in grades 6, 7, and 8 and for each grade separately which follows is arranged according to that revision:

Questions	6th	7th	8th	Total Group
1. Who is President of the United States?	70	70	70	70
2. Who is Adolph Hitler?	95	94	98	96
3. Explain C. C. C.	23	40	50	43
4. Accumulation of savings and capital				
___ tend to raise wages and the standard of living				
___ tend to depress wages and the standard of living				
___ has no effect on wages and the standard of living	15	33	48	40
5. Who is John L. Lewis?	23	19	34	27
6. Explain W. P. A.	13	8	36	25
7. Name the two U. S. Senators from your state.	8	5	37	24
8. Who is the Secretary of State? (U.S.)	2	15	31	23
9. Who is Charles Evans Hughes?	2	6	30	21
10. Who is James Farley?	9	19	28	22
11. Explain C. I. O.	2	0	23	17
12. Give the meaning of Social Security.	5	6	22	17
13. Explain T. V. A.	1	6	21	15

14. Give the meaning of Dust Bowl.	4	4	19	14
15. Give the meaning of Soil Conservation Program.	2	4	17	11
16. Name, if you can, one of the Senators from Virginia.	0	0	15	11
17. Explain a balanced budget.	70	70	70	70
18. What, in round numbers, is the present debt of the U. S.?	0	0	11	9
19. Give the meaning of Court Packing Plan.	1	0	13	9
20. Give the meaning of re-armament.	6	0	11	7
21. Give, approximately, the price of cash cotton.	0	4	10	7
22. Who is Anthony Eden?	0	0	8	6
23. One of the three great compromises in the making of the U. S. Constitution was	0	2	6	4
24. Give, approximately, the tax rate in your home.	1	0	7	7
25. Give, approximately, the cost of white lead.	0	0	4	3

Figure 1
 Percentage Distribution of Correct Answers
 Roosevelt School, Keene, N. H.

Grade 6



INTERPRETATIONS OF FIGURE 1 ROOSEVELT SCHOOL

Grade 6

Question #1 (Who is President of the U. S.?) was answered by all the children.

The answers to question #2 (Who is Adolph Hitler?) were clearly guesses as is evidenced by the fact that those who attempted to classify him as to occupation and there were such guesses as a miner, a farmer, and the like.

Question #3 (Explain C. C. C.) was attempted only by those could satisfactorily explain it.

Question #4 (Accumulation of savings and capital tends to raise, depress, or not effect wages and the standard of living.) was largely unattempted but a few guessed that it tended to have no effect.

Question #5 (Who is John Lewis?) was attempted only by those who knew him to be head of the C. I. O.

There was almost no attempt to answer question #6 (Explain T. P. A.). Lack of knowledge is probably due to not knowing people who have been employed by U. P. A.

Question #7 (Name the two U. S. Senators from your state.) and question #10 (Who is James Farley?) showed that all three of these were unknown to the group since there were no attempts to answer these.

Question #8 (Who is Secretary of State?) was characterized by guesses. The most frequent guess was John Hance Garner. The names of Hugo Black and Anthony Eden also occurred.

The few guesses to question #9 (Who is Charles Evans Hughes?) confused him with the principal of another Keene school whose name is Huse.¹ It is interesting, however, that children from other Keene schools did not make this error.

From the number who answered question #11 (Explain C. I. O.) we assume that they are acquainted with laborers who are interested in the organization.

A few attempts to answer question #12 (Give the meaning of Social Security.) showed vagueness as to what social legislation intends to do.

The distance these children live from the areas concerned probably accounts for the lack of interest shown in no knowledge of the following: Question #13 (Explain T. V. A.); question #14 (Give the meaning of Dust Bowl.); question #15 (Give the meaning

¹The author acknowledges appreciation to Professor Frank Roberts for this information.

of Soil Conservation Program.); question #16 (Name one of the Senators from Virginia.).

There was likewise no attempt to answer question #17 (Explain a balanced budget.).

Guesses on question #18 (What, in round numbers, is the total debt of the U. S.?) ranged from a positive statement of no debt at all to \$5000. Many did not try this question.

There was no attempt to answer question #20 (Give the meaning of re-armament.) or question #22 (Who is Anthony Eden?).

Distance from the cotton section accounts for failure to answer question #21 (Give, approximately, the price of cash cotton.). Unfamiliarity with the raw article is evidenced by failure on the part of the few who attempted it to even designate the unit by which cotton is sold.

Evidently the compromises in the making of the U. S. Constitution had not been stressed for question #23 (Give one of the compromises in the making of the U. S. Constitution.) was omitted by everyone.

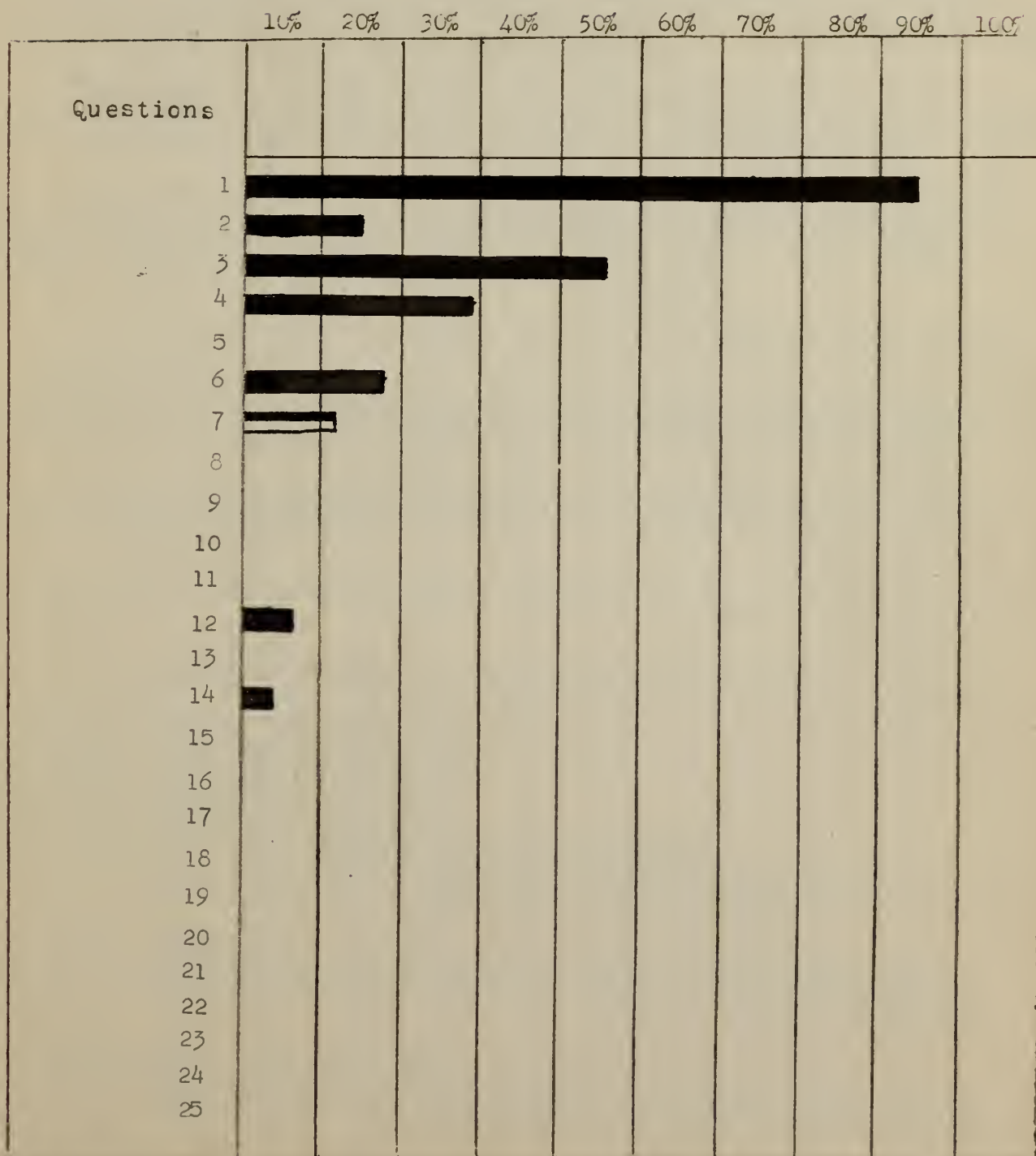
Question #24 (Give the cost of white lead per cwt.) was not attempted by anyone.

Two persons came within a dollar of the tax rate of Keene. Others who tried did not even give a basis for the rate nor was the rate anywhere near the true figure.

Figure 2

Percentage Distribution of Correct Answers
Franklin School -- Keene, N. H.

Grade 6



INTERPRETATIONS OF QUESTION 2
FRANKLIN SCHOOL, KEENE, NEW HAMPSHIRE

Question #1 (Who is President of the U. S.?) was answered by the majority. A few inserted the name of Theodore Roosevelt, however. This was probably due to carelessness, rather than ignorance.

About one sixth of the class knew Adolph Hitler as is shown in answers to question #2 (Who is Adolph Hitler?). A few were not sure of his country. Others omitted the question.

About half of the class answered question #3 (Explain C. C. C.) satisfactorily. Others who did not omit it explained it as a summer recreational camp and gave the government no part in it.

Responses to question #4 (Accumulation of capital and savings tends to raise, depress, or not effect the standard of living.) showed a tendency to guess, for checks were made on each of the possible answers by some members of the class.

No attempt was made to answer question #5 (Who is John Lewis?).

Question #6 (Explain W. P. A.) was answered by a small number. The majority attempted this question but in most instances they designated it as some one project with which they were familiar.

In the case of question #7 (Name the two senators from your state.) a few named Senator Bridges. No guesses were made as to who the other was.

No attempt was made to answer question #8 (Who is Secretary of State?).

To the following questions there were no attempts to answer:

Question #9 (Who is Charles Evans Hughes)

Question #10 (Who is James Farley?)

Question #11 (Explain C. I. O.)

Question #13 (Explain T. V. A.).

Question #14 (Give the meaning of the Dust Bowl)

Question #15 (Give the meaning of Soil Conservation Program)

These were clearly beyond the experience of the class.

Several attempts to answer question #12 (Explain Social Security.). Some thought of it only in terms of the number given employees, and still others limited the concept to money given to old people.

Question #17 (Explain a balanced budget) was generally unattempted but a few thought of it as saving, or putting money in the bank.

No attempts were made to answer the following questions:

- Question #18 (What is the present state of the U. S.?)
- Question #19 (Give the meaning of Court Packing Plan)
- Question #20 (Give the meaning of Re-armament.)
- Question #21 (Give, approximately, the price of cash cotton.)
- Question #22 (Who is Anthony Eden?)
- Question #23 (Give one of the great compromises in the making of the U. S. Constitution.)
- Question #24 (Give, approximately, the tax rate in your home.)
- Question #25 (Give, approximately, the price of white lead.)

Date		Description		Amount	
1890	Jan 1	Balance		100.00	
	Feb 1	Received from A. B.		50.00	
	Mar 1	Received from C. D.		25.00	
	Apr 1	Received from E. F.		75.00	
	May 1	Received from G. H.		100.00	
	Jun 1	Received from I. J.		150.00	
	Jul 1	Received from K. L.		200.00	
	Aug 1	Received from M. N.		250.00	
	Sep 1	Received from O. P.		300.00	
	Oct 1	Received from Q. R.		350.00	
	Nov 1	Received from S. T.		400.00	
	Dec 1	Received from U. V.		450.00	
	Total			2000.00	

INTERPRETATIONS OF FIGURE 3
SYMONDS SCHOOL

Grade 8

Question #1 (Who is President of the U. S.?), answered by all the children, was clearly within their experience.

Answers to question #2 (Who is Adolph Hitler) showed that Hitler's is a familiar name, but some identified him with Italy instead of Germany.

In answering question #3 (Explain C. C. C.) some acquaintance with C. C. C. was shown by 31%. Others thought that it had to do with camp life, but failed to show significance of the fact that it is a government provision for work.

In almost every instance, question #4 (Accumulation of savings and capital tends to raise, depress, or have no effect on wages and the standard of living.) was either answered correctly or omitted, probably showing the influence of the economic thinking industrial town in a section of the country economically conservative.

Question #5 (Who is John Lewis?) was usually either answered correctly or omitted. It is significant that many more knew that John L. Lewis was head of C.I.O. than knew what C.I.O. was.

To question #6 (Explain W.P.A.) there was some confusion as to the significance. Many explained it as city employees, thereby showing that they knew that it had to do with work.

To question #7 (Name the two U. S. Senators from your state.) answers showed that Senator Brown was unknown but a few knew Senator Bridges. Senator Brown does much less traveling and speaking than Senator Bridges.

Less than half of the class answered question #8 (Who is Secretary of State?); others confused Hull with Farley.

The answers to question #9 (Who is Charles Evans Hughes?) were characterized by much guessing. Any person with whom they were familiar whose last name was Hughes, occurred.

On question #10 (Who is James Farley?) a small per cent of the whole knew him as postmaster-general. Probable acquaintance with the name is shown by the fact that several guessed him to be Secretary of State or Senator from New Hampshire.

In question #11 (Explain C.I.O.), C.I.O. was misunderstood by many and they did not attempt answers.

Many attempts as to what Social Security actually is revealed that many were very vague in their conception of it. The number issued to individuals was considered by many as the total significance.

1. The first part of the report is devoted to a general description of the work done during the year.

2. The second part contains a detailed account of the experiments carried out, and the results obtained.

3. The third part is devoted to a discussion of the results, and an attempt is made to draw conclusions from them.

4. The fourth part contains a summary of the work, and a list of references.

5. The fifth part is devoted to a description of the apparatus used, and the methods employed.

6. The sixth part contains a list of the names of the persons who have assisted in the work.

7. The seventh part is devoted to a description of the results of the work, and an attempt is made to draw conclusions from them.

8. The eighth part contains a summary of the work, and a list of references.

9. The ninth part is devoted to a description of the apparatus used, and the methods employed.

10. The tenth part contains a list of the names of the persons who have assisted in the work.

11. The eleventh part is devoted to a description of the results of the work, and an attempt is made to draw conclusions from them.

12. The twelfth part contains a summary of the work, and a list of references.

On question #13 (Explain T. V. A.) they showed no knowledge of T. V. A., which one would judge to be due largely to the distance they live away from Tennessee.

On question #14 (Give the meaning of Dust Bowl.) the absence of an attempt to explain the Dust Bowl may likewise be due to their distance away from the area concerned.

On question #15 (Give the meaning of Soil Conservation Program.) some answered correctly, but there is a probability that they derived the answer from aknowledge of word meanings, because of the similarity in expressing the answer "a good government program to save soil." Other items in the section may have suggested that it was a government plan.

Question #16 (Name one of the Senators from Virginia.) was not attempted by anyone.

Question #17 (Explain a balanced budget.) was tried by some members of the class and most of these showed that they knew it had to do with money, for they suggested that it meant saving.

Answers to question #18 (What, in round numbers, is the total debt of the U. S.?) were few and usually a small figure was quoted.

Only one person answered satisfactorily question #19 (Give the meaning of Court Packing Plan.). The few others who attempted it showed that they failed to relate the idea to the U. S. Supreme Court.

No attempts were made to answer question #20 (Give the meaning of re-armament.) and question #22 (Who is Anthony Eden?).

Question #21 (Give the price of cash cotton.) was not understood to refer to raw cotton, nor did the members of the class who attempted show any uniformity as to their conception, for some named the yard as the unit, while others failed to show their unit. Prices were generally high.

Failure to attempt question #23 (Name one of the three great compromises in the making of the U. S. Constitution.) suggests that this has not been taught.

To question #24 (Give the tax rate in your home.) one student gave a reasonable answer.¹ Others gave answers varying from \$2.00 to \$300.00 with no basis for the rate.

The same person also gave the right answer to question #25 (Give the cost of white lead.). No others attempted it.

¹Tax rate at Keene, N. H.: \$30.07 per \$1000
Moody's Government and Municipals
Answer given \$32.00

INTERPRETATIONS OF FIGURE 4
WELLSBLOCK SCHOOL

Grade 6

Question #1 (Who is President of the U. S.?) was answered by the whole class, showing that it was within their experience.

Answers to question #2 (Who is Adolph Hitler?) showed that the class had become aware by the publicity which Hitler receives that he is a dictator but he was often associated with Italy.

Question #3 (Explain C. C. C.) was answered by 46%. Many who attempted to answer showed that they knew that the letters C. C. C. had to do with camp life, but confused the camp with boy scout camps or summer camps.

On question #4 (Accumulation of savings and capital tends to raise, depress, or have no effect on wages and the standard of living.) considerable guessing was evidenced by the variety in answers and the supplying of the name of the name of the President or of some commodity instead of the check.

The answers to question #5 (Who is John Lewis?) showed that with few exceptions John L. Lewis' office was either known or that there was so little knowledge of him that the question was left blank. Of the three guesses, one confused him with Joe Louis, one thought him to be governor, and the other, a representative.

From the answers to question #6 (Explain W. P. A.) it was apparent that with the majority there was a very narrow conception of W. P. A. by many. From some answers it is judged that they were getting their whole conception from some project with which they were familiar and therefore explained it as those who construct buildings or roads. An ignoring of the fact that it is a government agency was general among those who gave unsatisfactory answers.

Question #7 (Name the two U. S. Senators from your state.) showed that Bridges was known by more members of the class than Brown. Other names appearing on the questionnaire were sometimes substituted and also the name of Justice Hugo Black who was very much in the news because of his appointment to the Supreme Court at the time the questionnaire was given.

The few attempts to answer question #8 (Who is Secretary of State?) showed that the Secretary of State is generally unknown to this group. Whenever an attempt was made to answer, either Bridges or Farley was assigned to the office.

There was a lesser tendency to guess on question #9 (Who is Charles Evans Hughes?) and those who did not know Charles

Evans Hughes usually omitted the answer.

Answers to question #10 identifying James Farley showed a variety of guesses. The tendency to guess suggests that the name was a familiar one. Guesses included a senator, a representative, Senator from Virginia, and C. I. O. leader.

Fewer knew of question #11 what C. I. O. meant than knew that John L. Lewis headed the organization. Attempts to answer revealed that the term was familiar but the organization was usually merely considered a group of strikers.

A vagueness to the meaning of Social Security was shown by answers to question #12 (Give the meaning of Social Security.). Some knew it related to an act but several thought it a secret organization.

Question #13 (Explain T. V. A.) was generally not attempted. The distance these children live from Tennessee may account for their lack of knowledge of T. V. A.

Likewise their distance from the Dust Bowl probably accounts for failure on the part of the majority to answer or attempt to answer question #14 (Give the meaning of Dust Bowl.).

The knowledge the children had of soil conservation seemed confused with its source, the radio, for many designated question #15 (Give the meaning of Soil Conservation Program.) as a radio program.

Distance from Virginia probably accounts for lack of interest in the activities of even its prominent senator.

Omissions prevailed on question #17 (Explain a balanced budget.) showing that very few even understood the term balanced budget. A few thought of it as money one owes.

Guesses on the national debt of the U. S. ranged from a positive statement of no debt to nine billion dollars. This showed considerable guessing on question #18 (What, in round numbers, is the total U. S. debt?).

There was almost no attempt to answer question #19 (Give the meaning of Court Packing Plan) and this shows that the majority probably did not understand the terminology.

Question #20 (Give the meaning of re-armament.) was almost generally omitted showing no knowledge of re-armament.

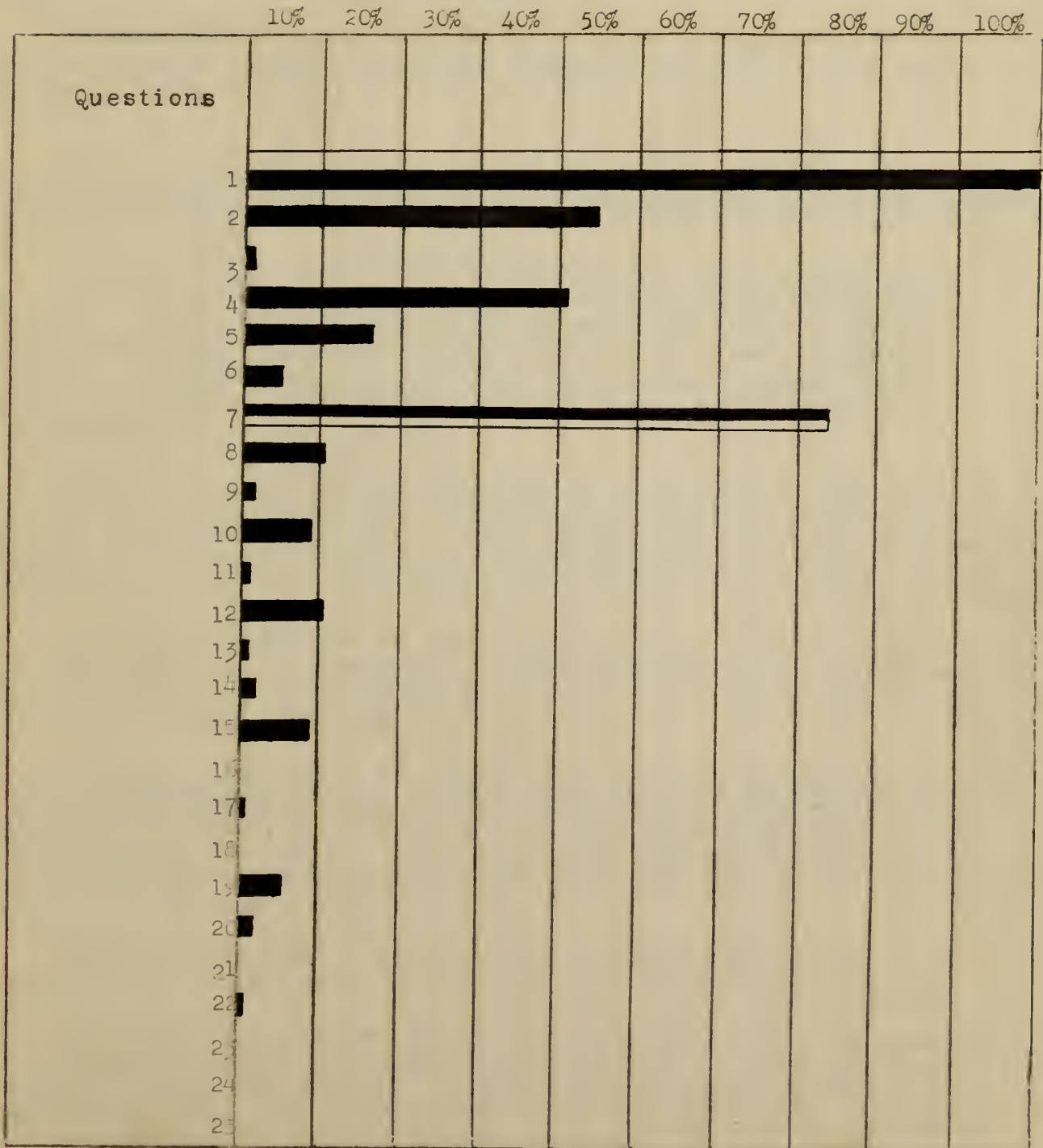
Question #21 (Give approximately the price of cash cotton.)

Question #22 (Who is Anthony Eden?) was almost generally omitted showing no knowledge of Anthony Eden.

Figure 5

Percentage Distribution of Correct Answers
Franklin School, Keene, N. H.

Grade 8



INTERPRETATIONS OF FIGURE 5
FRANKLIN SCHOOL

Grade 8

Question #1 (Who is President of the U. S.?) was within the experience of the class and answered by all the children.

Of the few mistakes made by those attempting question #2 (Who is Adolph Hitler?) the most frequent error was associating him with Italy. Almost half of the class identified him correctly.

Question #3 (Explain C. C. C.) was often attempted but these attempts showed that most of the children were vague in their ideas about the purpose of the camps or whose responsibility they were.

On question #4 (Accumulation of capital and savings tends to raise, depress, or have no effect on wages and the standard of living.) almost half of the students gave the correct answer. Some showed that they did not understand the directions by supplying the name of the President or in one instance that of Frances Perkins. Still others omitted the question, while a few checked the wrong answer.

There was considerable guessing on question #5 (Who is John Lewis?) as is evidenced by such variety of answers as a member of the President's cabinet, a boxer (confusing him with Joe Louis), or merely a striker. It will be noted that C. I. O. (#11) is not very familiar so it is not unusual that they do not know its head.

Answers to question #6 (Explain W. P. A.) showed that W. P. A. was very greatly misunderstood. Some considered it a labor union. The only thing about it which the majority who tried seem to be sure of is that it concerns work.

Answers to question #7 (Name the two U. S. Senators from your state.) revealed that the majority know Senator Bridges who receives much publicity because of constant speech-making, but no one knew Senator Brown. The name of Hugo Black, who had just been appointed to the Supreme Court when the test was taken, was often named as the second senator.

Question #8 (Who is Secretary of State?) was generally unattempted, but several offered the name of Frances Perkins.

Few likewise answered correctly question #9 (Who is Charles Evans Hughes?) and there again we have a public official whose name must have been familiar enough for the class to think they knew who he was. He was referred to as a senator or a governor most frequently by those who were not sure.

The large number attempting to answer question #10 (Who is James Farley?) probably denoted that the name was a familiar one although the percent who answered it was small. He was usually designated as a U. S. Senator.

Failure on the part of the majority to answer question #11 (Explain C. I. O.) shows that the organization is not well known in this community.

Answers to question #12 (Give the meaning of Social Security.) disclosed such vague ideas as the numbers of the cards or parties. A very small percent gave any credit to the government for having anything to do with it.

Distance from Tennessee probably accounts for the failure of the majority to attempt to answer question #13 (Explain T. V. A.)

Likewise distance from the area concerned probably accounts for failure on question #14 (Give the meaning of Dust Bowl.) to locate or explain its meaning.

There is probability that many who answered correctly question #15 (Give the meaning of Soil Conservation Program.) derived their answers from a meaning of words. Other items in section B of the original questionnaire may have suggested the part the Government played.

Their distance from Virginia may account for the lack of attention to the State's Senators as is evidenced by failure to answer or in most cases to even attempt to answer question #16 (Name, if you can, one of the senators from Virginia.).

Answers to question #17 (Explain a balanced budget.) showed that many had the idea that it had to do with money but were not otherwise sure of the meaning.

The majority did not attempt to answer question #18 (What, in round numbers, is the total debt of the U. S.?). Those who answered showed a wide range of guesses.

A few explained question #19 (What is the meaning of Court Packing Plan?) acceptably. The majority did not attempt to answer.

There were few attempts to answer question #20 (Give the meaning of re-armament.).

Having no experience with raw cotton no attempt was made to answer question #21 (What is the price of cash cotton?). They live so far from the sections where it is raised.

Question #22 (Who is Anthony Eden?) showed that the only attempt to answer came from one who knew definitely what Eden's position was. The name was probably unfamiliar to the rest of the class.

Evidently the compromises in the making of the U. S. Constitution were not stressed for no one knew question #23 (Give one

of the great compromises in the making of the U. S. Constitution.). When an attempt was made the Missouri Compromise was named, but this was not frequent.

While no one answered correctly question #24 (Give the cost of white lead.) several guessed figures of from \$1.50 to \$3.00. These low figures were indicative of mere guessing.

No one could answer question #25 (Give, approximately, the tax rate in your home.) and almost no attempts were made at answering.

INTERPRETATIONS OF FIGURE 6 TILDEN SCHOOL

Grade 6

Question #1 (Who is President of the U. S.?) was answered correctly by all except one member who gave Eleanor Roosevelt as the name.

Unfamiliarity with the name was shown in the failure of the majority to attempt to answer question #2 (Who is Adolph Hitler?). In a few instances he was confused with Mussolini.

Question #3 (Explain C. C. C.) was in several instances confused with summer recreational camps.

The variety in the items checked in question #4 (Accumulation of savings and capital tends to raise, depress, or not effect wages and the standard of living.) indicated guessing.

No attempts were made to answer question #5 (Who is John Lewis?). This was consistent with the fact that no one knew what C. I. O. is.

Failure to answer question #6 (Explain W. P. A.) was due largely to a conscious effort to fit in words for which those letters might stand, rather than thinking in terms of the real significance.

Question #7 (Name the two U. S. Senators from your state.) was largely unanswered. In each case the senator mentioned was Senator Bridges.

Only one person could answer question #8 (Who is Secretary of State?). Only a few attempted to answer.

The names of the Chief Justice and the Postmaster General were unfamiliar for there were no attempts to answer questions #9 and #10.

There was likewise no attempt to answer question #11 (Explain C. I. O.). While the organization is known to some children of this town probably due to the section or to the age of the children there was little interest.

Question #12 (Give the meaning of Social Security.) showed a few guesses while only one had a clear enough conception of the reference.

No one attempted questions #13 (Explain T. V. A.), #14 (Give the meaning of Dust Bowl), #15 (Give the meaning of Soil Conservation Program.), and #16 (Name one of the senators from Virginia.) Because of failure to attempt other questions not

of sectional interest we doubt that failure here is due altogether to distance from the areas concerned, though it is probably a factor.¹

No attempt was made to answer question #17 (Explain a balanced budget.).

Several guesses were made on question #18 (What, in round numbers, is the total U. S. debt?). These were such low figures that they could not be attributed to teaching that had not been kept up to date.

Failure to attempt answers to the following showed utter unfamiliarity:

- Question #19 (Give the meaning of Court Packing Plan.)
- Question #20 (Give the meaning of re-armament.)
- Question #21 (Give, approximately, the price of cash cotton.)
- Question #22 (Who is Anthony Eden?)
- Question #23 (Give one of the three great compromises in the making of the U. S. Constitution.)
- Question #24 (Give the cost of white lead per cwt.)
- Question #25 (Give, approximately, the tax rate in your home.)

¹Keene, N. H.

INTERPRETATIONS OF FIGURE 7

NORTH SCHOOL

Grade 8

Question #1 (Who is President of the U. S.?) was within the experience of the class and was answered by all.

Answers to question #2 (Who is Adolph Hitler?) showed 44% were able to identify Hitler. Of the other trials the most common error was confusion with Mussolini or in definiteness in simply classifying him as a ruler.

Other than 40% who answered question #3 (Explain C. C. C.) correctly there were few who ventured an attempt.

On question #4 (Accumulation of savings and capital tends to raise wages and the standard of living, tends to depress or has no effect on it.) some took advantage of the checking to guess but there was no tendency to check the same wrong answer.

There was little guessing on question #5 (Who is John Lewis?) by those who did not know John L. Lewis. The percentage who knew his connections with the C. I. O. far exceeded those who could explain what C. I. O. was.

The answer to question #6 (Explain W. P. A.) showed that other than the 32% who could satisfactorily explain W. P. A. the most common error was to designate the workers as city employees. This may be due to the type of work they may have seen done in their communities.

Answers to question #7 (Name the two U. S. Senators from your state.) showed the State Senators to be not well known. Of the two Senator Lodge was usually the one mentioned.

Other than the 25% who knew the Secretary of State there was little guessing on question #8 (Who is Secretary of State?) so many were probably unfamiliar with the name.

Answers to question #9 (Who is Charles Evans Hughes) revealed that the Chief Justice is not so well known by the group and was usually classified as a governor or senator.

On question #10 (Who is James Farley?) there were many omissions but those who attempted to answer generally connected Farley in some way with politics as is evidenced by the fact that he was referred to sometimes as seeking the office of governor or as a senator.

A very small percent answered question #11 (Explain C. I. O.) correctly. Others who attempted to answer usually identified the C. I. O. with a band of communists.

Question #12 (Explain Social Security.) revealed considerable confusion, some thinking of Social Security as some form of philanthropy.

THE HISTORY OF THE
CITY OF BOSTON

FROM THE FIRST SETTLEMENT TO THE PRESENT TIME
BY
JOHN HUTCHINGS
OF THE BOSTON BAR

IN TWO VOLUMES.
THE FIRST VOLUME.
FROM THE FIRST SETTLEMENT TO THE YEAR 1780.

LONDON:
PRINTED BY J. JOHNSON, ST. PAULS CHURCH-YARD.
1781.

THE SECOND VOLUME.
FROM THE YEAR 1780 TO THE PRESENT TIME.
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JOHN HUTCHINGS
OF THE BOSTON BAR.

LONDON:
PRINTED BY J. JOHNSON, ST. PAULS CHURCH-YARD.
1781.

The failure to attempt an answer to question #13 (Explain T. V. A.) may be based on lack of knowledge of T. V. A. due to the distance from Tennessee.

Distance from the area concerned probably accounts for the fact that only those who answered correctly assumed that they had sufficient knowledge of the Dust Bowl to attempt to answer question #14 (Give the meaning of Dust Bowl.).

For the most part, those who attempted answers to question #15 (Give the meaning of Soil Conservation Program.) resorted only to a rearrangement of the wording.

Distance away from Virginia may have accounted for lack of knowledge of her Senators as shown by the answers to question #16 (Name one Senator from Virginia.).

From the incorrect answers to question #17 (Explain a balanced budget.), there was apparent the fact that it was concerned with money.

No conception of what the U. S. debt is was shown by failure of many to attempt to answer the question #18 (What, in round numbers, is the total U. S. debt?); the nearest figure among those who tried being one billion dollars.

Answers to question #19 (Give the meaning of Court Packing Plan.) consisted largely of rearranging wording.

There was almost no attempt to answer in question #20 (Explain re-armament.). The same was true of the seventh grade of the same school.

The few attempts to answer question #21 (Give, approximately, the price of cash cotton.) showed not even knowledge of the unit by which cotton is sold. This shows the influence of distance from the area in which cotton is grown.

Failure to answer or attempt to answer question #22 (Who is Anthony Eden?) showed utter unfamiliarity with his name.

Evidently the compromises in the making of the U. S. Constitution had not received much stress since question #23 (Give one of the three great compromises in the making of the U. S. Constitution.) was generally unattempted.

Question #24 (Give the cost of white lead) was generally omitted, due most likely to the fact that they have had no experience with the raw product.

Question #25 (Give, approximately, the tax rate in your home.) was generally omitted or such a low figure given that it was clear that they were guessing.

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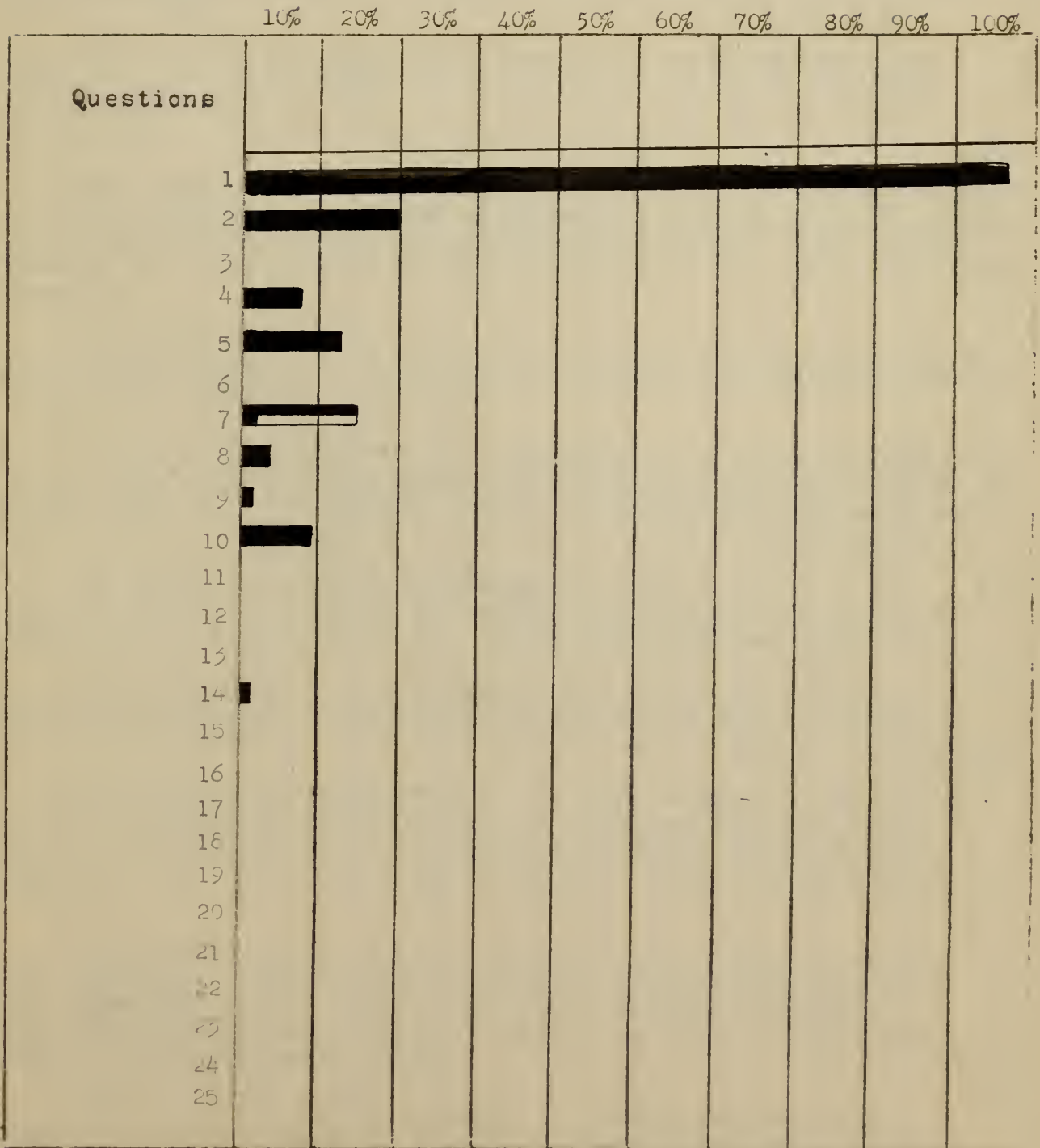
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Figure 8

Percentage Distribution of Correct Answers
Walpole School, Walpole, Mass.

Grade 6



INTERPRETATIONS OF FIGURE 8
WALFOIL SCHOOL

Grade 6

Question #1 (Who is President of the U. S.?) was answered by all members of the class.

While less than one-fourth answered question #2 (Who is Adolph Hitler?) correctly, several others erred in identifying him with Italy.

Most of the class did not attempt to answer question #3 (Explain C. C. C.). Those who did venture to offer an answer showed that they knew that it was a camp, but had no idea of its purpose.

That question #4 (Accumulation of capital and savings tends to raise, depress, or not effect wages and the standard of living.) was largely misunderstood is evidenced by the fact that several inserted the name of the President instead of the check which was directed.

A few members of the class were able to answer question #5 (Who is John Lewis?). A few others confused him with the world's heavyweight champion, Joe Louis.

A limited knowledge of the significance of W. P. A. was shown by the large number answering question #6 (Explain W. P. A.) in the light of some project they had undoubtedly seen such as "men who work on roads" or "people who work for the city."

The percentage trying question #7 (Name the two U. S. Senators from your State.) was small. Here again the name of Senator Lodge proved to be the better known of the two.

The large number of omissions to question #8 (Who is Secretary of State?) indicated that Secretary Hull is not well known to the group. A few offered the name of Farley and Hughes.

Other questions appearing on the form seemed to have suggested answers to question #9 (Who is Charles Evans Hughes?) for he was referred to as a Senator from Massachusetts, Senator from Virginia, or as Secretary of State. A few called him an author.

Question #10 (Who is James Farley?) was characterized by much guessing. That he was a political figure seemed to be well known for he was referred to as a senator, a Supreme Court Justice, and as Attorney General, as well as Postmaster General by a very small number.

There was very little attempt to answer question #11 (Explain C. I. O.) even by the few who knew John Lewis as its head.

No one attempted to explain question #12 (Give the meaning

of Social Security.) or question #13 (Give the meaning of T. V. A.).

Several members attempted to answer question #14 (Give the meaning of Dust Bowl.) and question #15 (Give the meaning of Soil Conservation Program.) by merely changing the order of the wording.

Those members of the class who explained Charles Evans Hughes as Senator from Virginia also answered question #16 (Name one of the Senators from Virginia.) in the same manner. It was largely omitted.

Question #17 (Explain a balanced budget.) proved that the majority of those who tried thought it had to do with savings.

Many guesses were made as to the extent of the national debt, question #18 (What, in round numbers, is the total debt of the U. S.?). They were all much too low, no one naming a figure even as high as one billion dollars.

Omissions indicated that the terms used in question #19 (Give the meaning of Court Packing Plan.) were unfamiliar.

Question #20 (Give the meaning of re-armament) was usually unattempted, as was question #22 (Who is Anthony Eden?).

The few who attempted to answer question #21 (What is the price of cash cotton?) attempted to quote prices on a bale and these showed unfamiliarity even with the size of the bale, for prices as low as \$3.00 were stated.

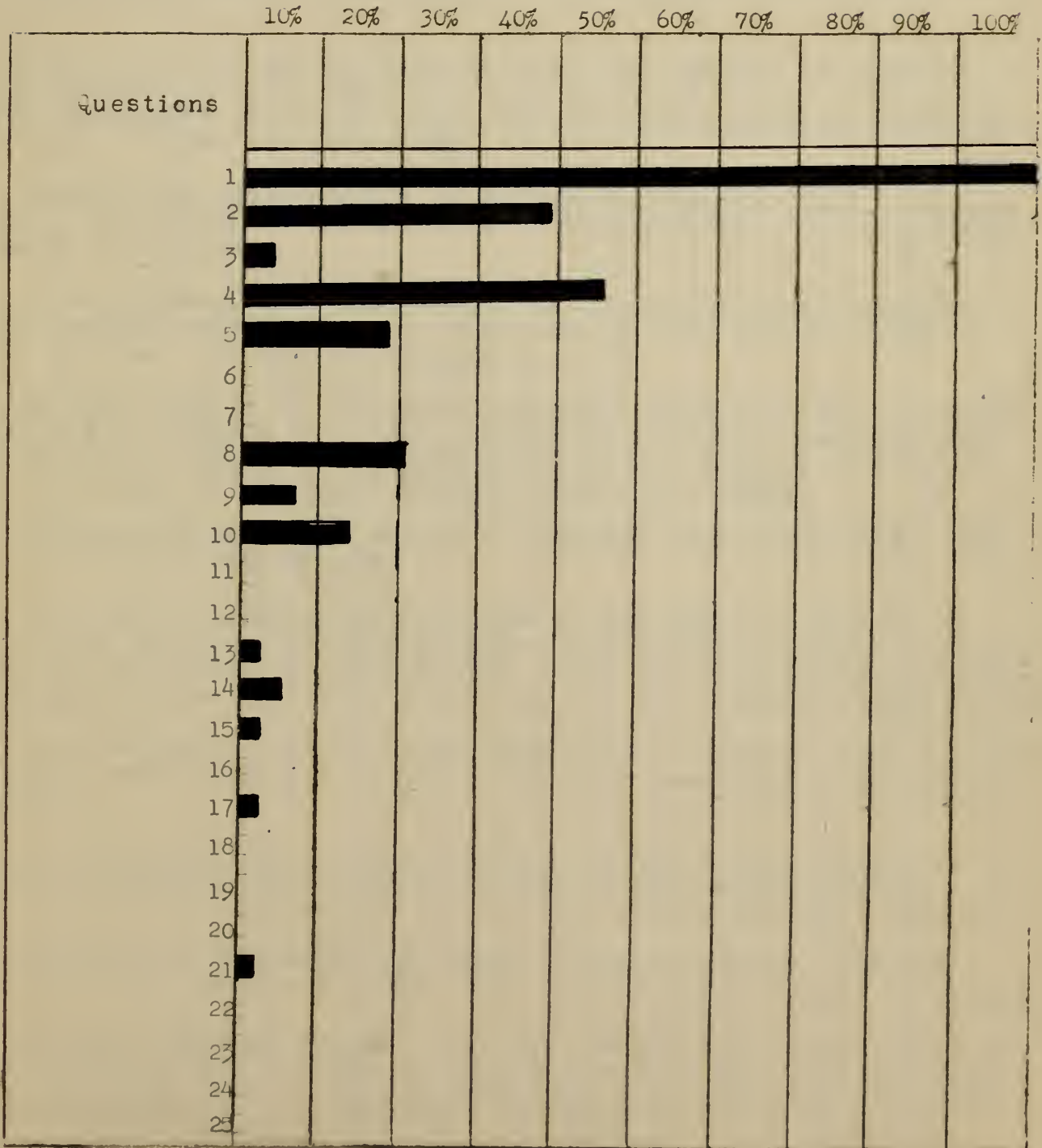
Evidently the compromises to the Constitution had not been taught in this class for there was no attempt to answer question #23 (Give one of the great compromises in the making of the U. S. Constitution.).

There were no attempts to answer question #24 (Give the cost of lead per cwt.) or question #25 (What is approximately the tax rate in your home?).

Figure 9

Percentage Distribution of Correct Answers
Walpole School - Walpole, Mass.

Grade 7



INTERPRETATIONS OF FIGURE 9 WALPOLE SCHOOL

Grade 7

Question #1 (Who is President of the U. S.?) was answered by everyone in the class.

Answers to question #2 (Who is Adolph Hitler?) proved that he was fairly well known to the group. A few thought him to be an Italian.

Confusion with summer camps was shown by replies to question #3 (Explain C. C. C.). Most of the class failed to give any credit to the government for these camps, nor did they appreciate the fact that they are open the year round.

Question #4 (Accumulation of savings and capital tend to raise, depress, or not effect the standard of living.) was either correctly answered or omitted.

A few answered question #5 (Who is John Lewis?) but otherwise it was largely omitted. Note: More were able to tell who John Lewis was than were able to explain C. I. O.

Several members of the class attempted unsuccessfully to answer question #6 (Explain W. P. A.). The answers showed, however, that they failed to understand the significance, but thought of it as some particular job in which they had seen men engaged.

Question #7 (Name the two U. S. Senators from your state.) was almost generally unattempted.

Some knew Secretary Hull's office as was shown by answers to question #8 (Who is Secretary of State?) but several others ascribed the office to Farley or Anthony Eden. This was clearly the influence of suggestion from questions #18 and #19 of the original questionnaire.

The attempts to answer question #9 (Who is Charles Evans Hughes?) exhibited several guesses suggested by other questions in the questionnaire.

Question #10 (Who is James Farley?) received such answers as a senator or senator from Virginia as well as the correct answer. These showed that they associated the name with a political figure.

Practically no attempt was made to answer question #11 (Explain C. I. O.) or question #12 (Give the meaning of Social Security.).

Distance probably accounts for the inability of the majority to answer question #13 (Explain T. V. A.), question #14 (Give the meaning of the Dust Bowl.), question #15 (Give the meaning of Soil Conservation Program.), and question #16 (Name one of the Senators from Virginia.). In most instances no attempts were made.

From the answers to question #17 (Explain a balanced budget.) it was evident that many of the class realized that it had to do with money, but thought of balancing as saving.

No conception of the national debt was shown by the attempts to answer question #18 (What, in round numbers, is the total U. S. debt?).

Question #19 (Give the meaning of Court Packing Plan.) and question #20 (Give the meaning of re-armament.) were omitted by everybody.

Various figures were quoted in question #21 (Give, approximately, the price of cash cotton.) but no unit of measure was stated for a basis. \$2.00 was one of the common figures.

Question #22 (Who is Anthony Eden?) was usually unattempted, but a few designated very vaguely as "a cabinet member."

Evidently the compromises in the making of the U. S. Constitution had not received much stress for only one person answered correctly question #23 (Give one of the great compromises in the making of the U. S. Constitution.).

No attempts were made to answer question #24 (Give the cost of white lead per cwt.).

Figures quoted in question #25 (Give, approximately, the tax rate in your home.) suggested for the most part amounts which may or may not have been an individual's taxes on a home, but paid no attention to rate. More than half the class omitted this question.

INTERPRETATIONS OF FIGURE 10 WALPOLE SCHOOL

Grade 8

Question #1 (Who is President of the U. S.?) was answered by all the class.

Question #2 (Who is Adolph Hitler?) showed that the majority were familiar with the German leader.

It is significant that most of the class tried and many succeeded in answering question #3 (Explain C. C. C.) while the 7th grade of the same school confused it with summer camps for boys.

Some guessing was evidenced by the variety of answers to question #4 (Accumulation of savings and capital tends to raise, depress, or not effect wages and capital.). More than half the class answered it correctly, however.

Answers to question #5 (Who is John Lewis?) showed that he was known by most of the class. Others failed to try to answer the question.

Answers to question #6 (Explain W. P. A.) showed that the majority were able to explain it satisfactorily, while most of the others explained it as some type of work which they had probably seen as a W. P. A. project, as "beautifying parks," or "improving streets."

While not very well informed on their State Senators as answers to question #7 (Name the two U. S. Senators from your State.) showed, there was a decided majority naming Senator Lodge.

About one third of the class could answer question #8 (Who is Secretary of State?). Others supplied the names of Garner and Hugo Black.

Not so well known to the group was question #9 (Who is Charles Evans Hughes?) and he was often designated as an aviator.

Most of the class attempted question #10 (Who is James Farley?). Besides those who named him as Postmaster General some also knew him as Chairman of the Democratic National Committee. Others designated him as a senator or a Supreme Court Justice, showing that they had at least heard the name enough to think themselves familiar with it.

More of the students had some ideas about the activities of the C. I. O. than is apparent in the number of correct answers to question #11 (Explain C. I. O.). Typical of these are such replies as "People who won't join the A. F. of L." and "People who start strikes."

Likewise several who attempted question #12 (Give the meaning of Social Security dismissed it as "Pensions." The showing on this question was creditable, however.

In spite of the lack of interest which might have been expected in projects which do not affect their own immediate section we find several successful attempts to answer question #13 (Explain T. V. A.), question #14 (Give the meaning of Dust Bowl), and question #15 (Give the meaning of Soil Conservation Program.)

There was on the other hand no attempt to answer question #16 (Name one of the senators from Virginia.)

Answers to question #17 (Explain a balanced budget.) revealed that most of the class knew that budget had something to do with income but many explained it as an income which permitted one to save money.

The class seemed to realize its inability to answer question #18 (What, in round numbers, is the total debt of the U. S.?) for few attempts were made.

In answering question #19 (Give the meaning of Court Packing Plan.) there were few who connected it with the U. S. Supreme Court. Some merely changed the order of the words thereby failing to show that they understood at all.

Other than those who could satisfactorily answer question #20 (Give the meaning of re-armament.) there were no trials.

The few attempts to answer question #21 (Give, approximately, the price of cash cotton.)

Failure to attempt to answer question #22 (Who is Anthony Eden?) indicated lack of familiarity with his name.

Because a few people could answer question #23 (Give one of the three great compromises in the making of the U. S. Constitution.) it is apparent that they must have been taught, but probably not stressed sufficiently to impress the majority.

No attempt was made to answer question #24 (Give the cost of white lead per cwt.)

Several answers to question #25 (Give approximately the tax rate in your home.) showed that the question was not understood for the majority thought of rate per person instead of as \$1000 valuation of property.

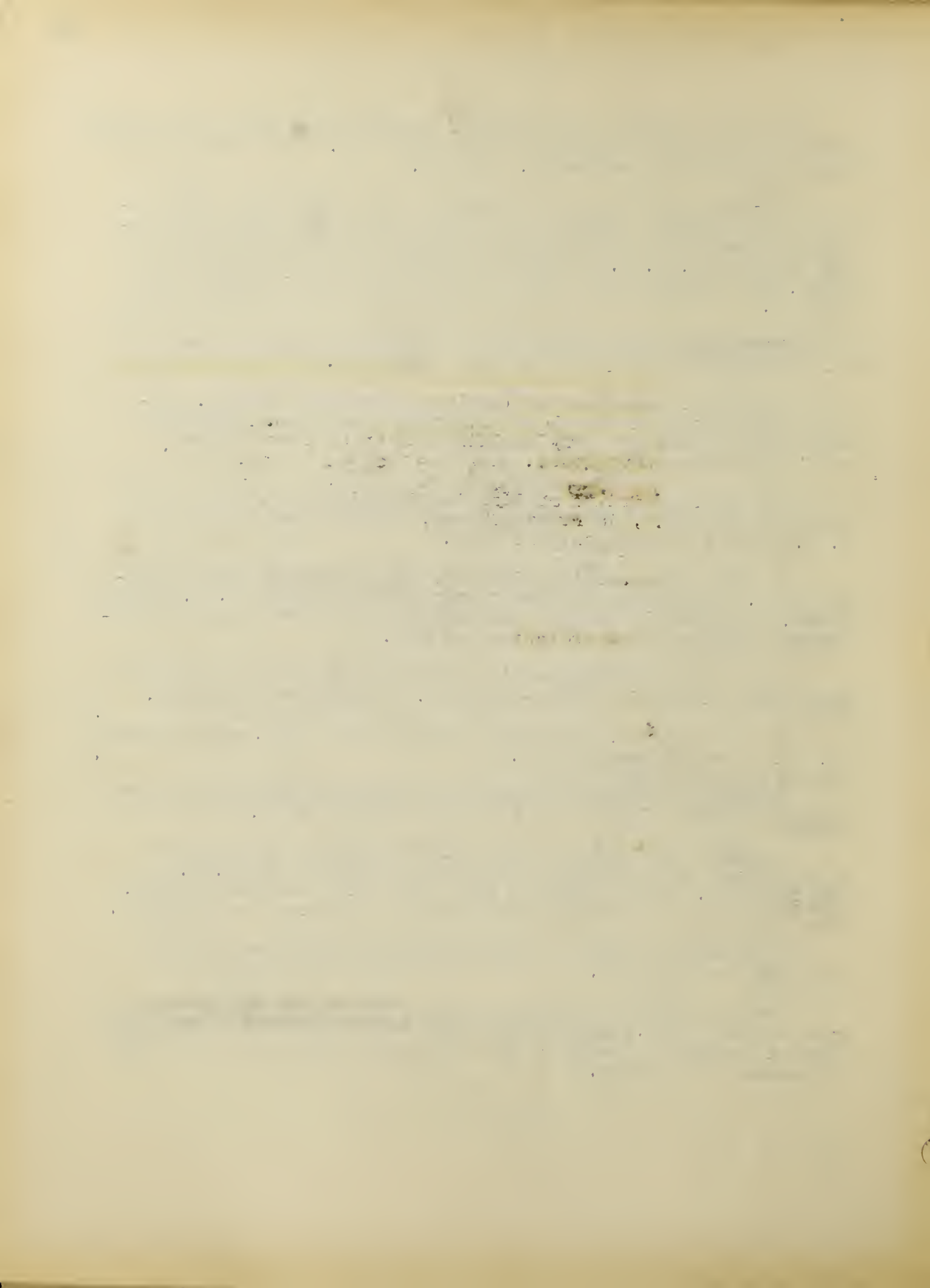
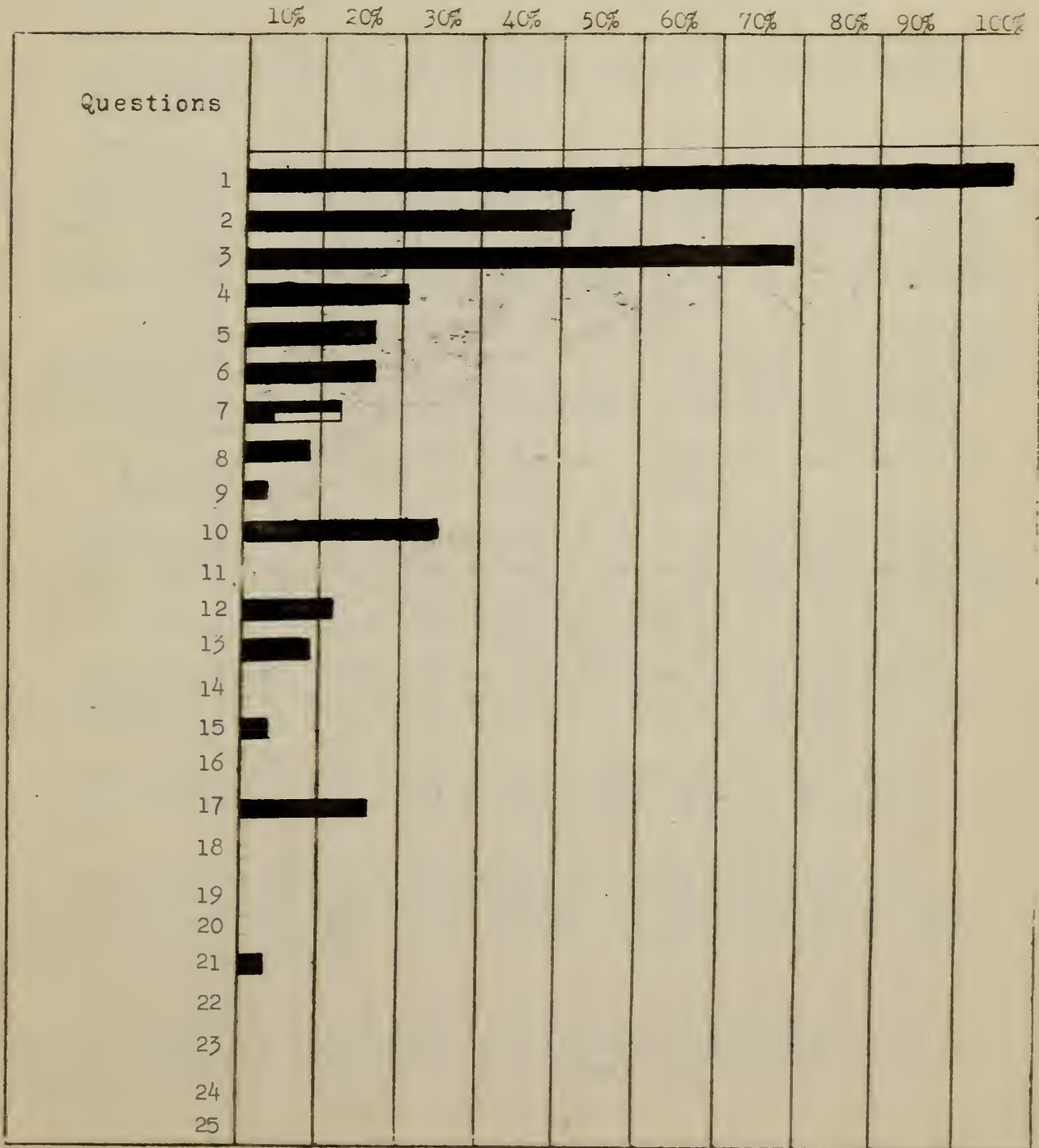


Figure 11

Percentage Distribution of Correct answers
North School - Bellin ham, Mass

Grade 7



INTERPRETATIONS OF FIGURE 11 NORTH SCHOOL

Grade 7

Question #1 (Who is President of the United States?) was answered correctly by all the class.

Question #2 (Who is Adolph Hitler?) showed that 43% were able to identify Hitler. Of the other trials the most common error is confusing him with Mussolini.

Answers to question #3 (Explain C. C. C.) either indicated that the majority of the members knew so little about C. C. C. that they would not venture to answer or thought of them as soldiers. This may be attributed to the fact that some of them may have seen some of the boys in uniforms or they may have seen pictures, or perhaps have heard the corps referred to as an army.

On question #4 (Accumulation of savings and capital tends to raise, depress, or not effect wages and the standard of living.) the children gave very few wrong answers. This showed that they judged themselves insufficiently informed to venture a guess.

On question #5 (Who is John Lewis?) almost no guesses were made. The majority did not know John L. Lewis.

Answers to question #6 (Explain W. P. A.) indicated that many knew that there was some relation to work but the most common error was an indication that members of the class considered W. P. A. as a corporation for which men work.

On question #7 (Name the two United States Senators from your state.) there was little guessing. Senator Lodge was the better known of the two.

The large number of omissions to question #8 (Who is Secretary of State?) showed that Secretary Hull is generally unknown.

Question #9 (Who is Charles Evans Hughes?) showed that Chief Justice Hughes was little known. A few who did not omit the question guessed him to be either a Senator or especially a Senator from Virginia.

Question #10 (Who is James Farley?) showed that Farley's name was evidently well-known; but there was uncertainty as to what his job was. The most popular guess was that he was a Senator.

There were practically no attempts to answer question #11 (Explain C. I. O.) even on the part of the small number who knew who John Lewis was its head.

While about 13% could satisfactorily explain question #12 (Give the meaning of Social Security.) others drew on their experience for a definition and explained it as having to do with parties.

Due probably to the distance from Tennessee is the failure to attempt an answer on question #13 (Explain T. V. A.)

Distance from the area concerned also probably accounts for failure on question #14 (Give the meaning of Lust Bowl.) to locate or explain Lust Bowl.

On question #15 (Give the meaning of Soil Conservation Program.) those who answered apparently drew on their knowledge of word meanings for their answer.

The usual incorrect answer to question #16 (Name one of the Senators from Virginia.) was Hugo Black. At the time the questionnaire was filled he was very much in the news because of his appointment to the Supreme Court.

On question #17 (Explain a balanced budget.) some showed the ability to explain from their knowledge of the meaning of words.

No conception of what the United States' debt is was shown by answers to question #18 (What, in round numbers, is the total debt of the U. S.?) the nearest being three billion dollars.

Answers to question #19 (Give the meaning of Court Packing Plan.) showed no knowledge of the Court Packing Plan and instead of venturing an answer or explanation many merely rearranged the wording.

There was about no attempt to answer question #20 (Give the meaning of re-arrangement.).

It was interesting to note that so far away from the cotton section one student was able to answer question #21 (Give, approximately, the price of cash cotton.) Otherwise it was generally omitted.

Failure to attempt to answer question #22 (Who is Anthony Eden?) showed utter unfamiliarity with Anthony Eden.

Evidently the compromises in the making of the U. S. Constitution had not received much stress, for question #23 (Give one of the three great compromises in the making of the U. S. Constitution.) was generally omitted.

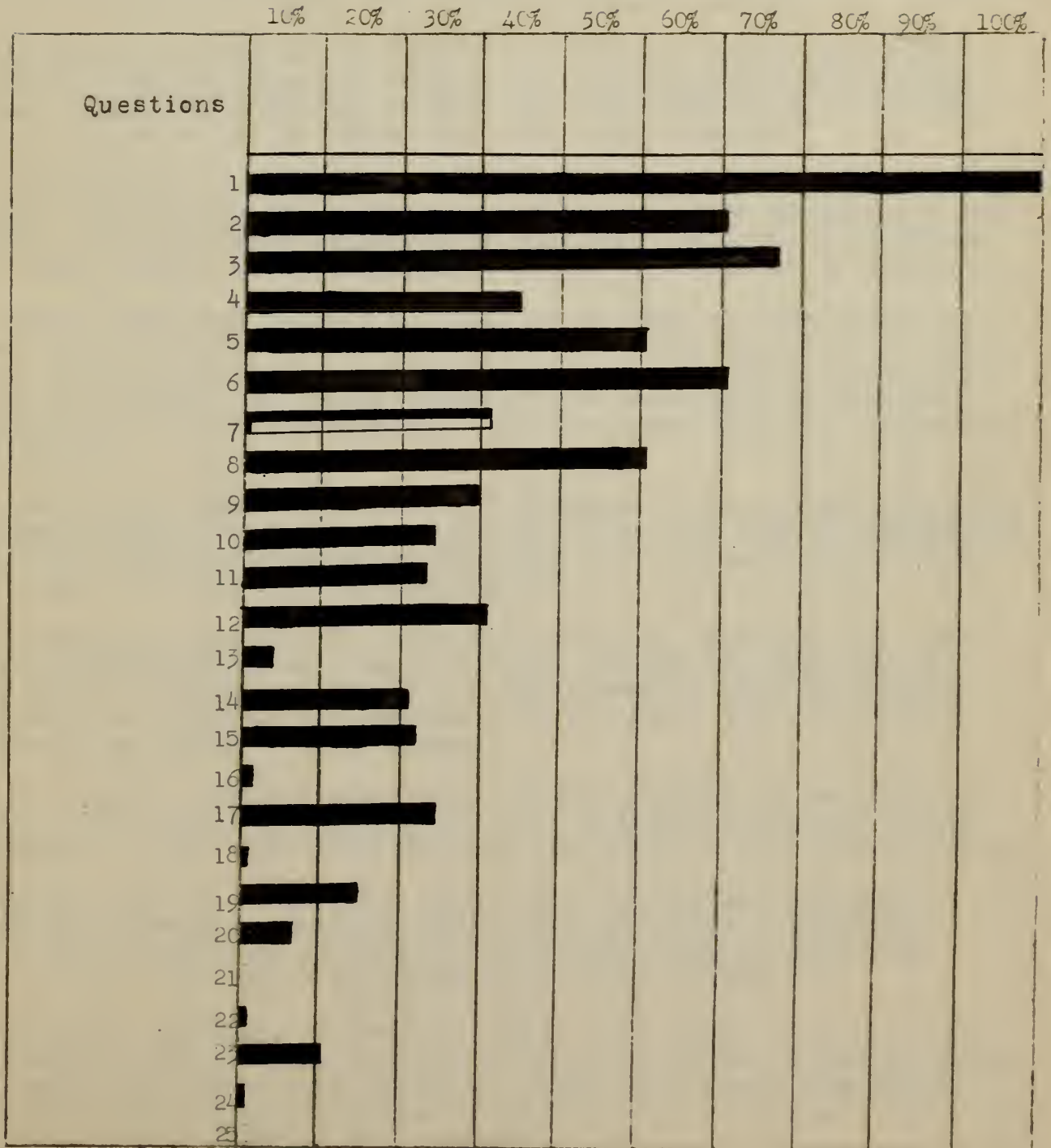
Question #24 (Give the cost of white lead.) was generally omitted.

Question #25 (Give, approximately, the tax rate in your home.) was generally omitted or a very low figure given.

Figure 12

Percentage Distribution of Correct Answers
Central Junior High School - Keene, N. H.

Grade 8



INTERPRETATIONS OF FIGURE 12 CENTRAL JUNIOR HIGH SCHOOL

Grade 8

Question #1 (Who is President of the U. S.?) was answered by all except one who erred by saying Theodore Roosevelt.

The German dictator is known by the majority as answers to question #2 (Who is Adolph Hitler?) indicate. Others attempted the question but failed to identify him with the proper country.

Question #3 (Explain C. C. C.) was answered correctly by the majority. Most of those who failed to answer satisfactorily failed because of limited knowledge of what the camps really do or by giving such vague replies as "those who help their country."

Question #4 (Accumulation of savings and capital tends to raise, depress, or have no effect on wages and the standard of living.) was usually either answered correctly or omitted. This probably showed that those who did not know judged themselves incapable of guessing.

There were many guesses on question #5 (Who is John Lewis?) by those who did not answer correctly. He was often confused with Joe Louis, or he was dismissed as a striker or a communist. These latter two answers showed that these students knew something of his connections with labor movements although they were vague as to the relationship.

While many answered question #6 (Explain W. P. A.) satisfactorily, others showed that they knew it had to do with work by explaining it as some type of job in which they had seen men participate, the most common of which was "working roads."

Answers to question #7 (Name the two U. S. Senators from your state.) revealed that here again Senator Bridges was the name usually given. Guesses as to who the other senator is were common, especially among those who knew Senator Bridges. Very frequently the guess was former Senator Moses.

Few people answered correctly question #8 (Who is Secretary of State?). The majority recognized their inability to answer by not attempting it, but others substituted the names of Garner and Farley.

While answers to question #9 (Who is Charles Evans Hughes?) showed that more than half the class knew him, there seemed to have been confusion on the part of many others who confused him with writing. (Probably confusion with Rupert Hughes.).

Question #10 (Who is James Farley?) was attempted by many who were vague as to what his position really is. These attempts showed that Farley was known as a political figure since many designated him to some other cabinet office or named him as a senator. In a few instances he was called a mail-carrier.

Question #11 (Explain C. I. O.) was usually unattempted by those who could not satisfactorily explain. That probably represented those who had come into contact with those who are interested in the organization.

The majority either omitted or gave vague answers to question #12 (Give the meaning of Social Security.). Many got no further than an idea that it was something to help people.

Distance away from the area immediately concerned probably accounts for the lack of knowledge exhibited by the few attempts to answer question #13 (Explain T. V. A.), question #14 (Give the meaning of the Dust Bowl.), and question #15 (Give the meaning of Soil Conservation Program.).

Question #16 (Name one of the Senators from Virginia.) was unattempted by all except the two who answered correctly. In both instances Senator Byrd was named, although Senator Glass is probably more prominent. Association with his brother, Admiral Byrd, probably accounts for the fact that he was remembered by these two.

Many attempted to answer question #17 (Explain a balanced budget.) merely by changing the order of the words.

Many unsuccessful attempts were made to answer question #18 (Give, in round numbers, the total U. S. debt.). \$1,000,000,000 was the most frequent guess, but there were many lesser figures quoted.

Poor reading of the question was responsible for some of the failure to answer question #19 (Give the meaning of the Court Packing Plan.). Some thought it had something to do with parking regulations.

There was little attempt to answer question #20 (Give the meaning of re-armament.).

Distance from the cotton area accounts for the wild guesses or omissions to question #21 (What is the price of cash cotton?).

There was almost no attempt to answer question #22 (Who is Anthony Eden?).

A few students were able to answer question #23 (Give one of the great compromises to the U. S. Constitution.). This shows that they have probably been referred to, though not stressed as important. Others confused it with causes for settling America.

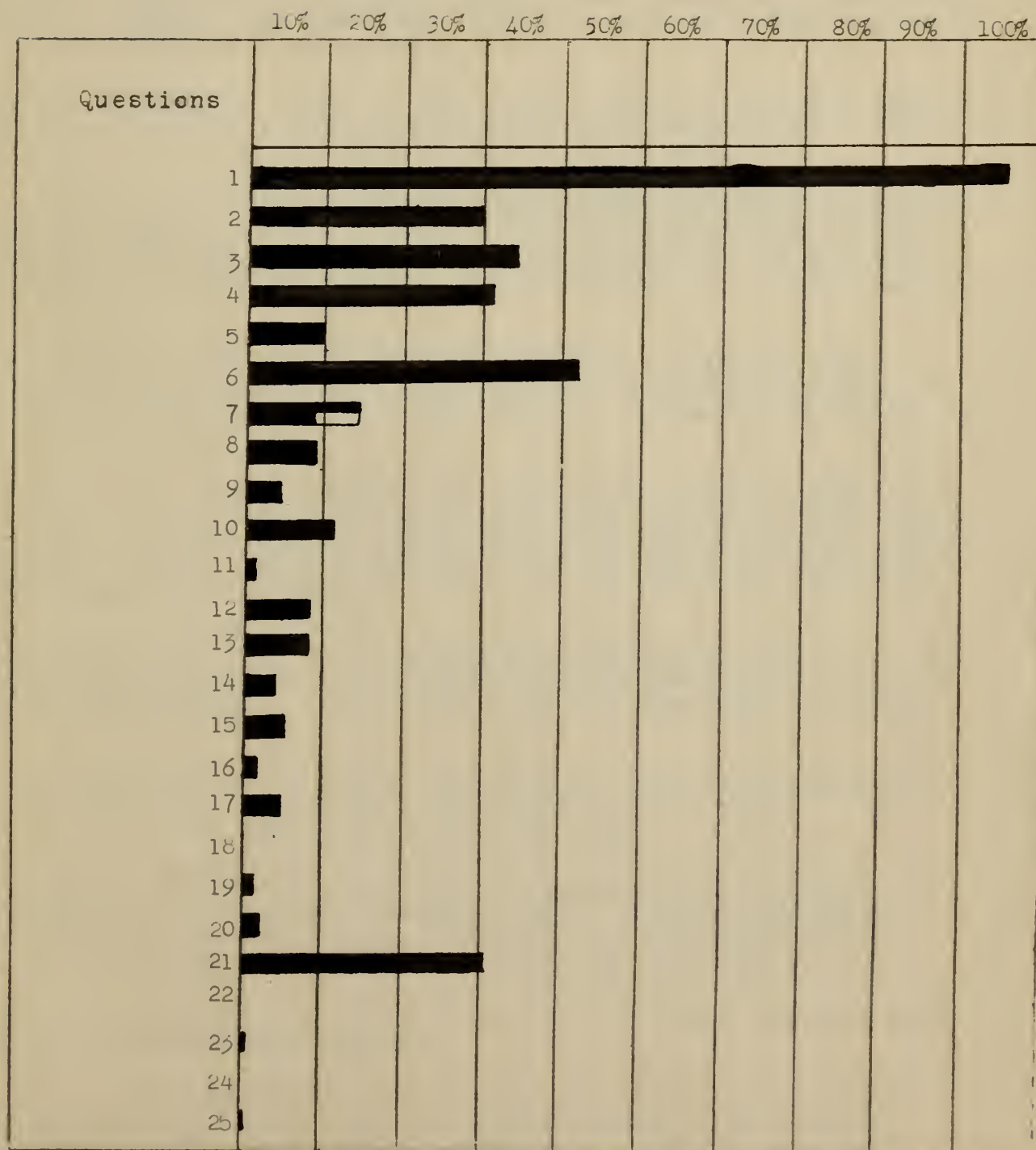
Question #24 (Give the cost of white lead per cwt.) was usually unanswered.

Question #25 (What is the tax rate in your home?) was known by one person and generally omitted by the others.

Figure 13

Percentage Distribution of Correct Answers
Berry O'Reilly School, - Method, N. C.

Grade 8



INTERPRETATIONS OF FIGURE 13
BERRY O'KELLY SCHOOL

Grade 8

While most of the class answered question #1 (Who is President of the U. S.?), a few erred by naming Theodore Roosevelt.

Question #2 (Who is Adolph Hitler?) was attempted by about one half of the class. The commonest errors were associating him with Italy or calling him a communist.

While almost one third of the class answered correctly question #3 (Explain C. C. C.), there were many more answers which showed a vague idea that it had to do with some sort of camp.

Considerable guessing on question #4 (Accumulation of savings and capital tends to raise, depress, or not effect wages and the standard of living.) was evidenced in the amount of erasing and the supplying of the President's name in one or all blanks instead of the check.

Answers to question #5 (Who is John Lewis?) showed little guessing as few attempts were made by those who did not know. A few others designated him as a man who is a communist, or confused him with Joe Louis.

Most of the class attempted to answer question #6 (Explain W. P. A.). The mistake was sometimes made in trying to find words to fit the letters. This resulted in such a designation as Welfare Public Association. Others explained in the light of particular projects like road building.

Of the senators named in question #7 (Name the two U. S. Senators from your state.), the most frequent mention was made of Senator Josiah Bailey. In several instances the names of state representatives were given.

The few attempts to answer question #8 (Who is Secretary of State?) showed that Secretary Hull is generally unknown. The names of Farley and Garner were commonly used.

Question #9 (Who is Charles Evans Hughes?) was generally attempted, but his name was confused with a Hughes of Newbern, North Carolina, who was highly publicized in this section because of the birth of a child when he was 96 years old.

Question #10 (Who is James Farley?) was either answered correctly or generally unattempted.

There were practically no attempts to answer question #11 (Explain C. I. O.). The fact that these children live in an agricultural section may explain this fact. It is interesting, however, that more of them know that John Lewis is head of C. I. O. than knew what C. I. O. is.

Few could explain question #12 (Give the meaning of Social Security.). The number issued to employees seemed to be the paramount thing in the minds of most of them.

Not many attempted to answer question #13 (Explain T. V. A.).

Their distance from the area concerned may account for the failure of most of the class to attempt an answer to question #14 (Give the meaning of Dust Bowl.) or the mere juggling of words in question #15 (Give the meaning of Soil Conservation Program.).

In question #16 (Name one senator from Virginia.) the name of the governor of Virginia was sometimes given, but the question was largely omitted. Each of those answering gave the name of Senator Byrd.

The fact that budget had to do with money was evident from answers to question #17 (Explain a balanced budget.), but they were very confused about what balanced meant and most of them attempted to explain it in terms of themselves.

There were few attempts to answer question #18 (Give the meaning of Court Packing Plan.).

The guesses to question #19 (What, in round numbers, is the total U. S. debt?) showed a wide range, but none reached even the billion mark.

Other than those who answered correctly, few even tried question #20 (Give the meaning of re-armament.).

Most people in the class attempted to answer question #21 (Give, approximately, the price of cash cotton.). Those who were judged wrong usually gave figures of 15¢ a pound or over. Most of those who gave reasonable answers were within a fraction of a cent. Some cotton is raised in the county¹ and there are cotton warehouses in the county seat² so that will account for knowledge.

No one knew nor did anyone attempt to answer question #22 (Who is Anthony Eden?).

Answers to question #23 (Give one of the great compromises in the making of the U. S. Constitution.) revealed that many confused these with the Missouri Compromise which they knew better.

One person gave a near correct answer to question #24 (Give the cost of white lead per cwt.) but it is very likely a guess, since they are not likely to come in contact with the raw article. Other figures were generally from two to five dollars.

Question #25 (Give, approximately, the tax rate in your home.) was confused with North Carolina's Sales' Tax³ and the majority answered in terms of sales' tax on 10¢ or on \$1.00.

¹Wake County, N. C.

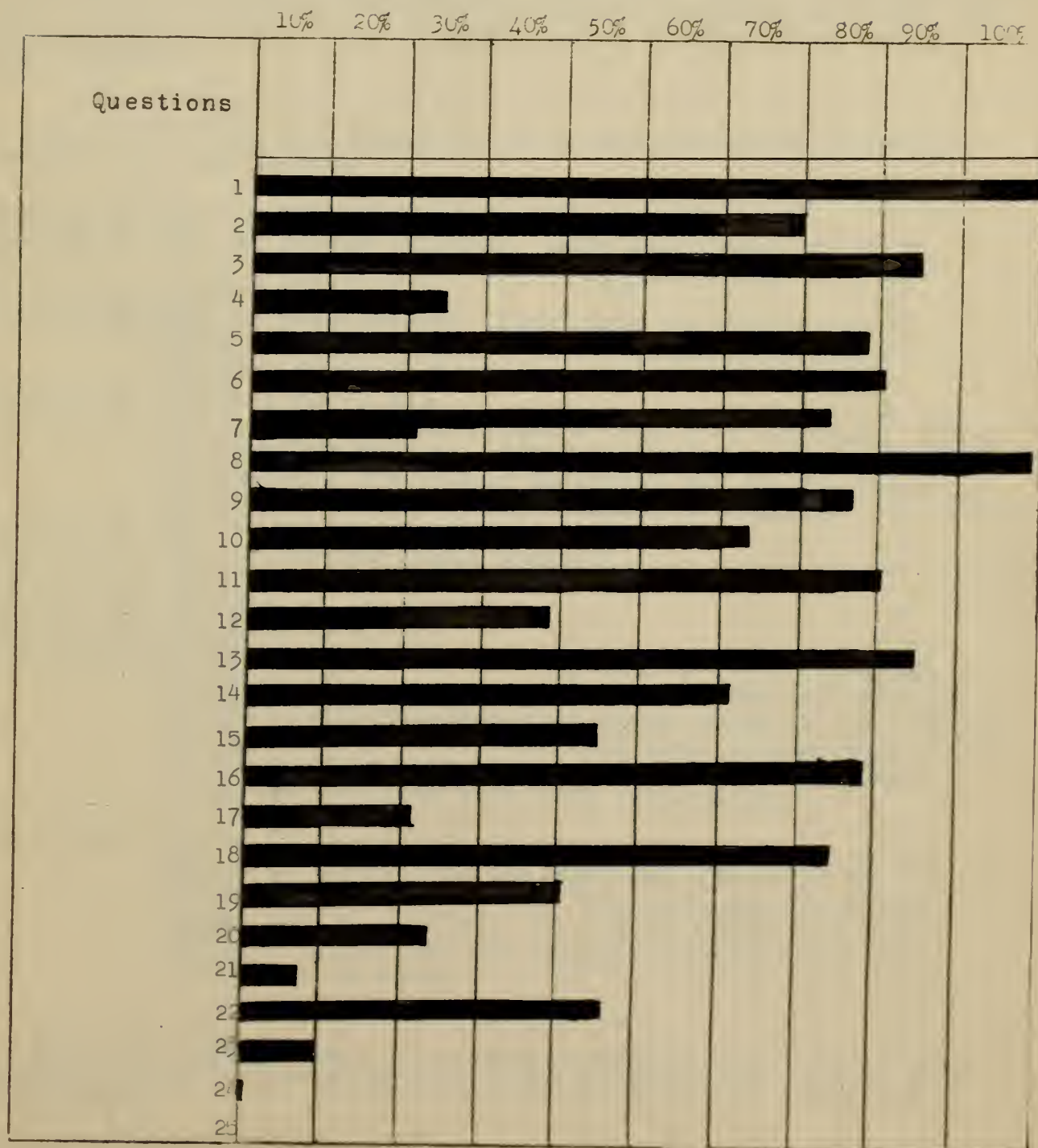
²Raleigh, N. C.

³Three cents on the dollar

Figure 14

Percentage Distribution of Correct Answers
Washington School, Raleigh, North Carolina

Grade 8



INTERPRETATIONS OF FIGURE 14 WASHINGTON SCHOOL

Grade 8

This school devotes at least one period a week to the teaching of current events beginning with the fourth grade and has done so for a number of years. This Current Events period is not made the basis of history teaching, however, but is thought of as a distinct subject.¹

The effect of that teaching can be seen in the majority who answered these questions:

- Question #1 (Who is President of the U. S.?)
- Question #2 (Who is Adolph Hitler?) Some identified him with Italy, however.
- Question #3 (Explain C. C. C.)
- Question #5 (Who is John Lewis?) Note here the difference in familiarity as compared with results from Berry O'Kelly, which is in the same county.²
- Question #6 (Explain W. F. A.)
- Question #7 (Name the two U. S. Senators from your state.). Where the question was one half answered there was not the overwhelming preference to either one as was shown in the Massachusetts and New Hampshire schools.
- Question #8 (Who is Secretary of State?)
- Question #9 (Who is Charles Evans Hughes?)
- Question #10 (Who is James Farley?)
- Question #11 (Explain C. I. O.)
- Question #13 (Explain T. V. A.)
- Question #16 (Name one senator from Virginia.). Here there was a distinct tendency to name Senator Byrd; the name of Senator Glass occurring only about three or four times. The popularity of Senator Byrd most likely grew out of association with his brother in whose explorations the children were much interested.
- Question #18 (What, in round numbers, is the total U. S. debt?) With some exceptions the debt was placed at 34 billion, while at the time the test was given the figure was 37 billion. This showed that the debt had been taught but not recently enough to be brought up to date.

Questions which relate to economic problems were not as well answered or were entirely omitted as is shown by the results in the following:

- Question #4 (Accumulation of savings and capital tends to raise, depress, or not effect wages and the standard of living.) Other attempts suggested that there was

¹Observations of the author, verified by Miss Louise Latham, history teacher in the school

²Washington is a city school, while Berry O'Kelly is a rural school.

considerable guessing on this question.

Question #12 (Give the meaning of Social Security.) Many had insufficient information and thought only in terms of numbers given to employees.

Question #15 (Give the meaning of Soil Conservation Program.)

Question #17 (Explain a balanced budget.)

Question #24 (Give the cost of white lead per cwt.)

Question #25 (Give, approximately, the tax rate in your home.)
For this a variety of figures were given that may have been possible figures for individual taxes rather than the rate.

While some answered question #19 (Give the meaning of Court Packing Plan) so many did not that it might be due to lack of teaching or to unfamiliarity with this particular terminology.

The majority did not think of question #20 (Give the meaning of re-armament) in terms of the present world situation.

The contrast between the answers to question #21 (Give, approximately, the price of cash cotton.) by this group and the Berry O'Kelly group is interesting. These either omitted the question or quoted a very high figure.

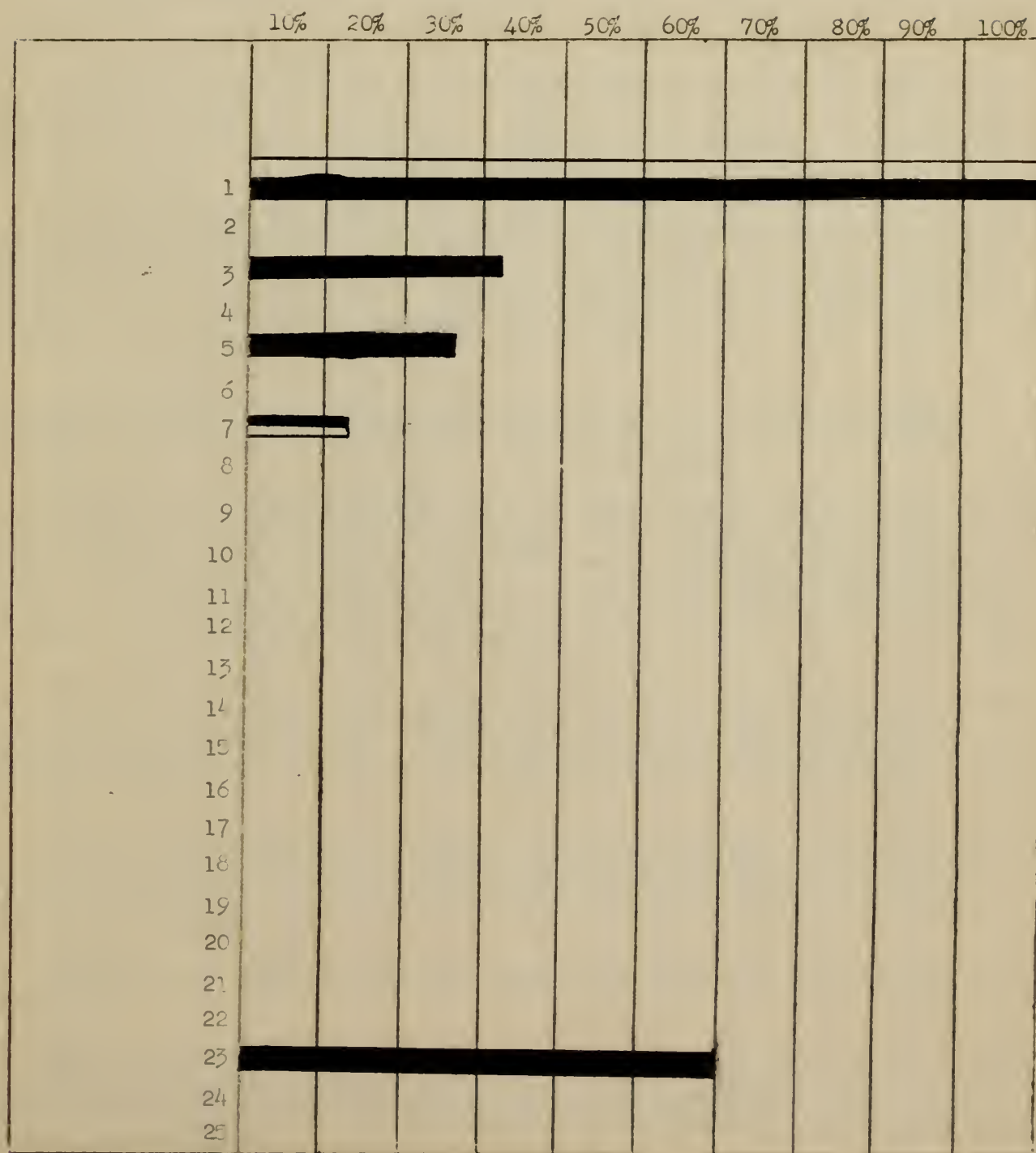
Failure on the part of many to answer #22 (Who is Anthony Eden?) probably is due to lack of interest on the part of some in a foreign name.

A few answered question #23 (Give one of the great compromises in the making of the U. S. Constitution.) but the majority either omitted it or confused it with the better known Missouri Compromise.

Figure 15

Percentage Distribution of Correct Answers
Morris School, Sumter, S. C.

Grade 8



INTERPRETATIONS OF FIGURE 15 MORRIS SCHOOL

Question #1 (Who is President of the U. S.?), answered by all the class, was clearly within their experience.

The name of Hitler is apparently unknown since no one even attempted to answer question #2 (Who is Adolph Hitler?).

The fact that 35% of the class answered question #3 (Explain C. C. C.) shows a possibility of contact with C. C. C. workers in the community or of reference to them in the school. The majority did not attempt to answer the question.

Few attempts were made to answer question #4 (Accumulation of savings and capital tends to raise, depress, or not effect wages and the standard of living.). Misunderstanding of directions was shown in the fact that they inserted the name of the President instead of a check mark on some one of the lines. There was no consistency, however, as to the one filled.

No attempts were made to answer question #5 (Who is John Lewis?). Being an agricultural county, the C. I. O. has probably made few contacts and its leader is unknown.

Very little guessing was done on question #6 (Explain W. F. A.). Being largely an agricultural county¹ it is possible that year-round agricultural pursuits have kept many of their neighbors from going to work on W. F. A. projects. Attention to some people at work on the projects, however, should have aroused interest enough to cause more than 26% to find out about W. F. A.

In every instance where question #7 (Name the two U. S. senators from your state.) was answered it was the name of Senator Smith which was mentioned. The fact that he is better known than Senator Byrnes may be due to the provocative type of bias his speeches exhibit.

Those who attempted to answer question #8 (Who is Secretary of State?) usually gave the name of Senator Smith of S. C., but were consistent in that those who used it here did not use his name again in #7.

Question #9 (Who is Charles Evans Hughes?) was not attempted by anyone.

Several attempts were made to answer question #10 (Who is James Farley?). The usual answer was that he is vice-president. This showed familiarity with the name and an association of the name with a political office.

¹ Sumter County, South Carolina

Question #11 (Explain C. T. O.) was not attempted by anyone due most probably to the reason mentioned in #6.

No knowledge of the following questions is shown by the fact that there were no attempts to answer any of them:

- Question #12 (Give the meaning of Social Security.)
- Question #13 (Explain T. V. A.)
- Question #14 (Give the meaning of Dust Bowl.)
- Question #15 (Give the meaning of Soil Conservation Program.)
- Question #16 (Name one of the senators from Virginia.)
- Question #17 (Explain a balanced budget.)
- Question #18 (What, in round numbers, is the total U. S. debt?)
- Question #19 (Give the meaning of the Court Packing Plan.)
- Question #20 (Give the meaning of re-armament.)
- Question #22 (Who is Anthony Eden?)
- Question #23 (Give one of the three great compromises in the making of the U. S. Constitution.)
- Question #24 (Give the cost of white lead per cwt.)
- Question #25 (Give approximately the tax rate in your home.)

Since cotton is the chief crop of their country it is natural that all attempted to answer question #21 (Give, approximately, the price of cash cotton.) In cases where an error was made the price given was usually unusually high, but in every instance it was a price that may have been paid at some time within their memory, but not in the most recent years.

Chapter IV

SUMMARY

The Civic and Political Information Test was given to 670 sixth, seventh, and eighth grade pupils. Of this number 456 were in the eighth grade, 52 in the seventh grade, and 162 in the sixth grade. Three hundred were from schools of Keene, N. H., 122 from Walpole, Massachusetts, 24 from Bellingham, Massachusetts, 177 from Wake County, North Carolina, and 15 from Sumter, South Carolina.

The average percentage of questions answered correctly for the whole group was 16; the average percentage of questions answered incorrectly was 17, while the average percentage of questions omitted was 67, as is shown in Fig. 16, p.119

The average percentage of questions answered correctly by eighth grade students was 21; the average percentage answered incorrectly by eighth grade students was 17; while the average percentage omitted by eighth grades was 62. The highest percentage of questions answered correctly by an eighth grade was the 56% by the Washington School of Raleigh, North Carolina, while the lowest percentage answered correctly by an eighth grade was the 9% of the Morris School of Sumter, South Carolina.¹ The highest percentage of questions answered incorrectly by an eighth grade was the 26% by the Franklin School of Keene, New Hampshire, while the lowest percentage of incorrect answers was the 11% of the Morris School, the Berry O'Kelly School of Method, North Carolina, and the Walpole School of Walpole, Massachusetts.² The highest percentage of questions by eighth

¹ See Fig. 17

² See Fig. 18

grades omitted was the 81% of the Morris School, while the lowest percentage of questions omitted by eighth grades was the 21% of the Washington School.¹

The average percentage of questions answered correctly by seventh grades was 12; the average percentage answered incorrectly by seventh grades was 27, while the average percentage omitted by seventh grades was 61. The highest percentage of questions answered correctly by a seventh grade was 13% by the North School of Bellingham, Massachusetts, while the lowest percentage was the 11% of the Walpole School of Walpole, Massachusetts.² The highest percentage answered incorrectly was the 32% of the North School, while the lowest percentage was the 22% of the Walpole School.³ The highest percentage omitted was the 67% by the Walpole School of Walpole, Mass., while the lowest percentage omitted was the 55% by the North School of Bellingham, Mass.¹

The average percentage answered correctly by sixth grades was 9; the average percentage answered incorrectly was 15; while the average percentage omitted by sixth grades was 76. The highest percentage answered correctly by sixth grades was the 14% of the Wheelock School of Keene, New Hampshire, while the lowest percentage answered correctly by a sixth grade was the 3% of the Tilden School of that city.² The highest percentage answered incorrectly by a sixth grade was the 24% of the Wheelock School, of Keene, N. H., while the lowest percentage of incorrect answers was the 11% of the Franklin School of Keene, N. H., while the percentage number was the 62% of the Wheelock School of Keene, N. H.³ The highest percentage omitted by a sixth grade was the

¹ See Fig. 19

² See Fig. 17

³ See Fig. 18

82% of the Tilden School of Keene, N. H., while the lowest percentage omitted was the 78% of the Walpole School of Walpole, Mass.¹

It is also interesting to note the averages as to location. Of the seven classes of Keene, New Hampshire,² the average percentage correct was 12, the average percentage wrong was 16, while the average percentage omitted was 72.

Grouping the Massachusetts classes³ we find an average of 15% correct, an average of 21% wrong, and an average of 26% omitted. Grouping the southern schools⁴ together we find an average of 23% correct, an average of 13% wrong, and an average of 59% omitted.

The highest percentage of correct responses was made by the eighth grade of the Washington School, of Raleigh, North Carolina, which was 56%, while the lowest percentage was the 6% made by the sixth grade of Tilden School of Keene, New Hampshire.

The highest percentage of incorrect answers was made by the seventh grade of the North School of Bellingham, Massachusetts, which was 32%, while the lowest percentage of incorrect answers was the 11% shared by the sixth grade of the Franklin School of Keene, New Hampshire, the eighth grade of the Walpole School of Walpole Massachusetts, and the Berry O'Reilly School of Method, North Carolina.

¹ See Fig. 19

² Tilden 6
Roosevelt 6
Franklin 6
Wheelock 6
Franklin 8
Symonds 8
Central Jr. High 8

³ Walpole 6
Walpole 7
Walpole 8
North 7
North 8

⁴ Washington 8
Berry O'Reilly 8
Lorris 8

The highest percentage of questions omitted was the 32% of the sixth grade of Tilden School of Keene, New Hampshire, and the lowest percentage omitted was the 21% of the eighth grade of the Washington School, of Raleigh, N. C.

Figure 17

Comparison of Correct answers

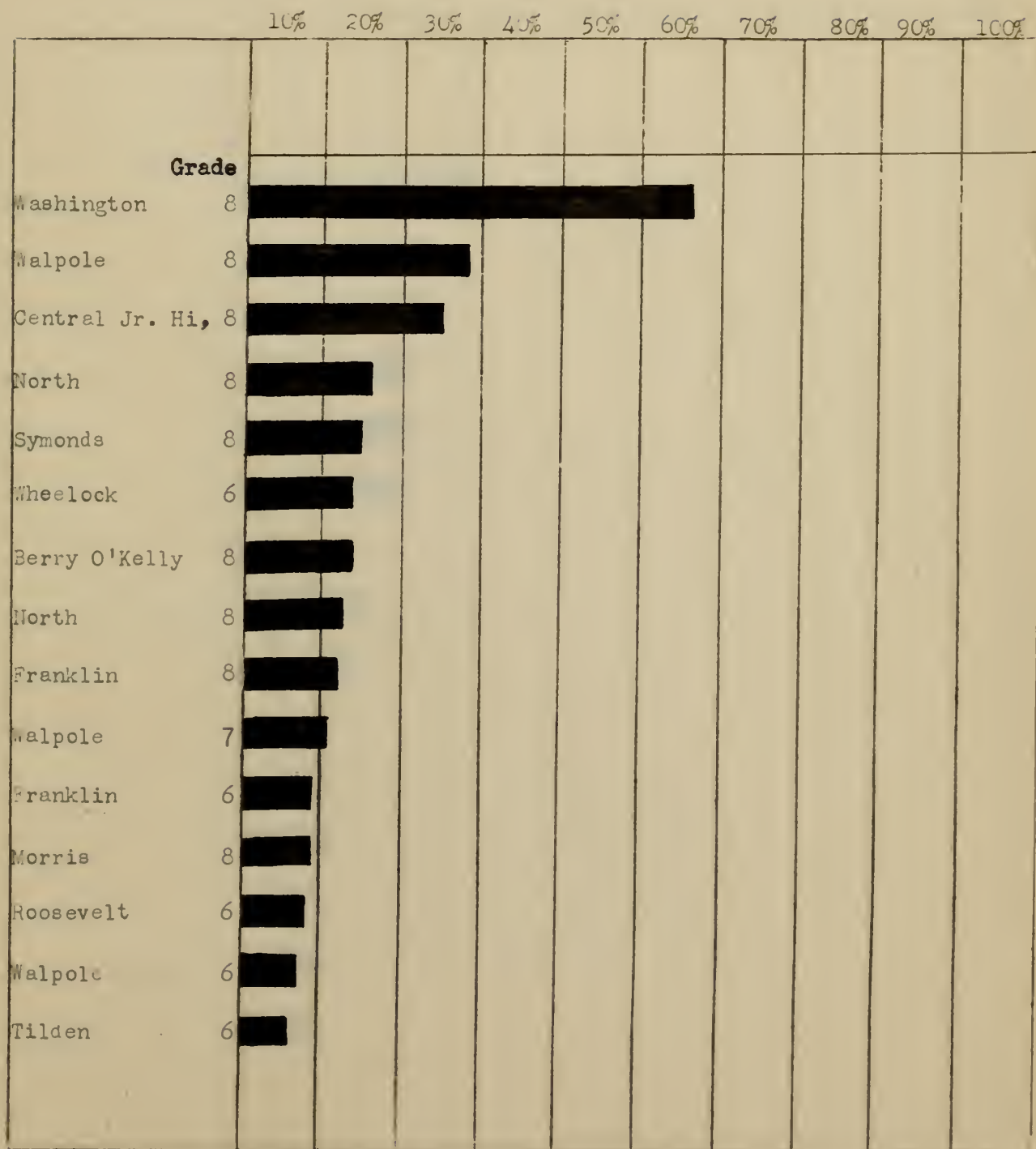


Figure 18

Comparisons of Incorrect Answers

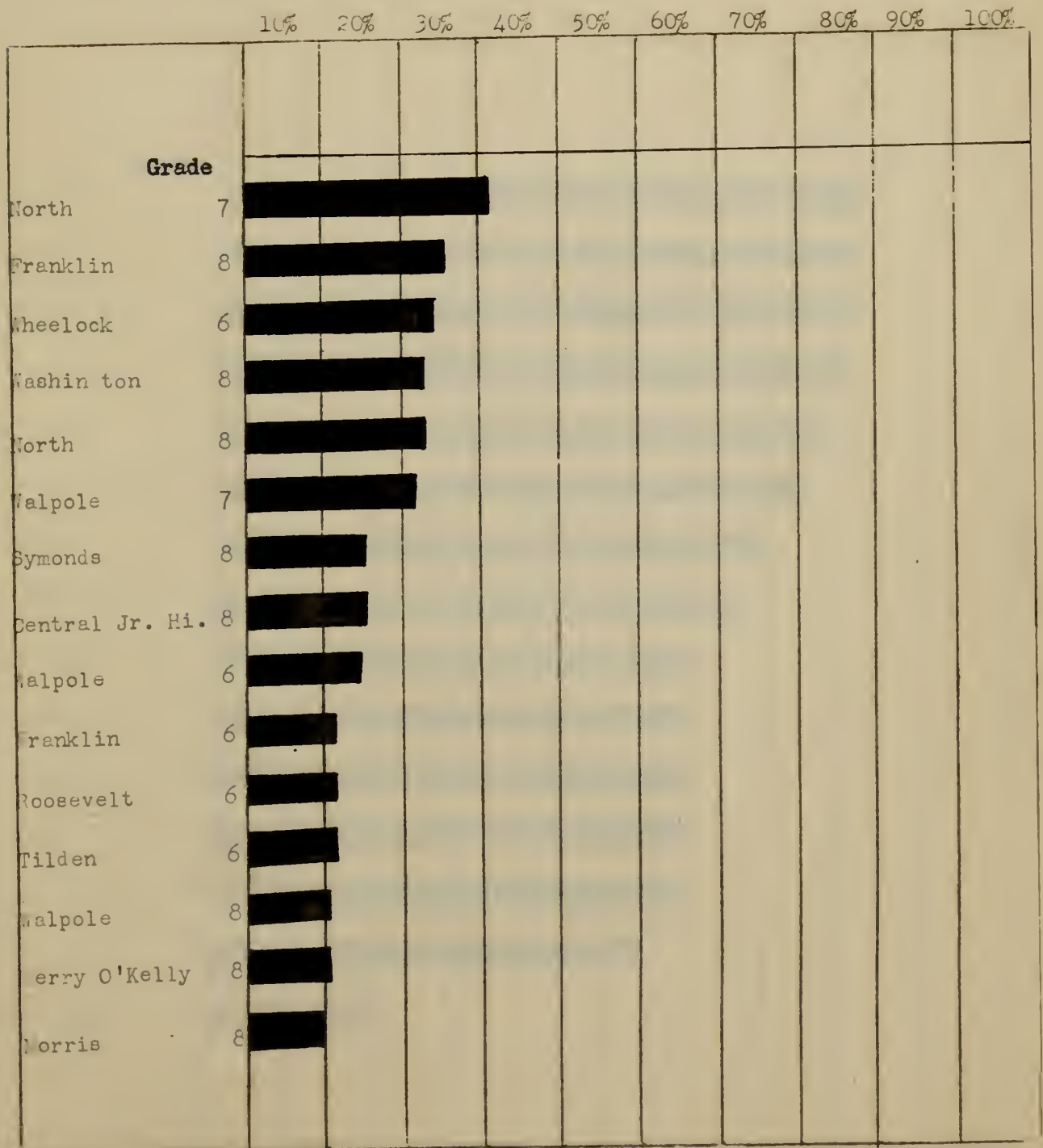


Figure 19

Comparison of Answers Omitted

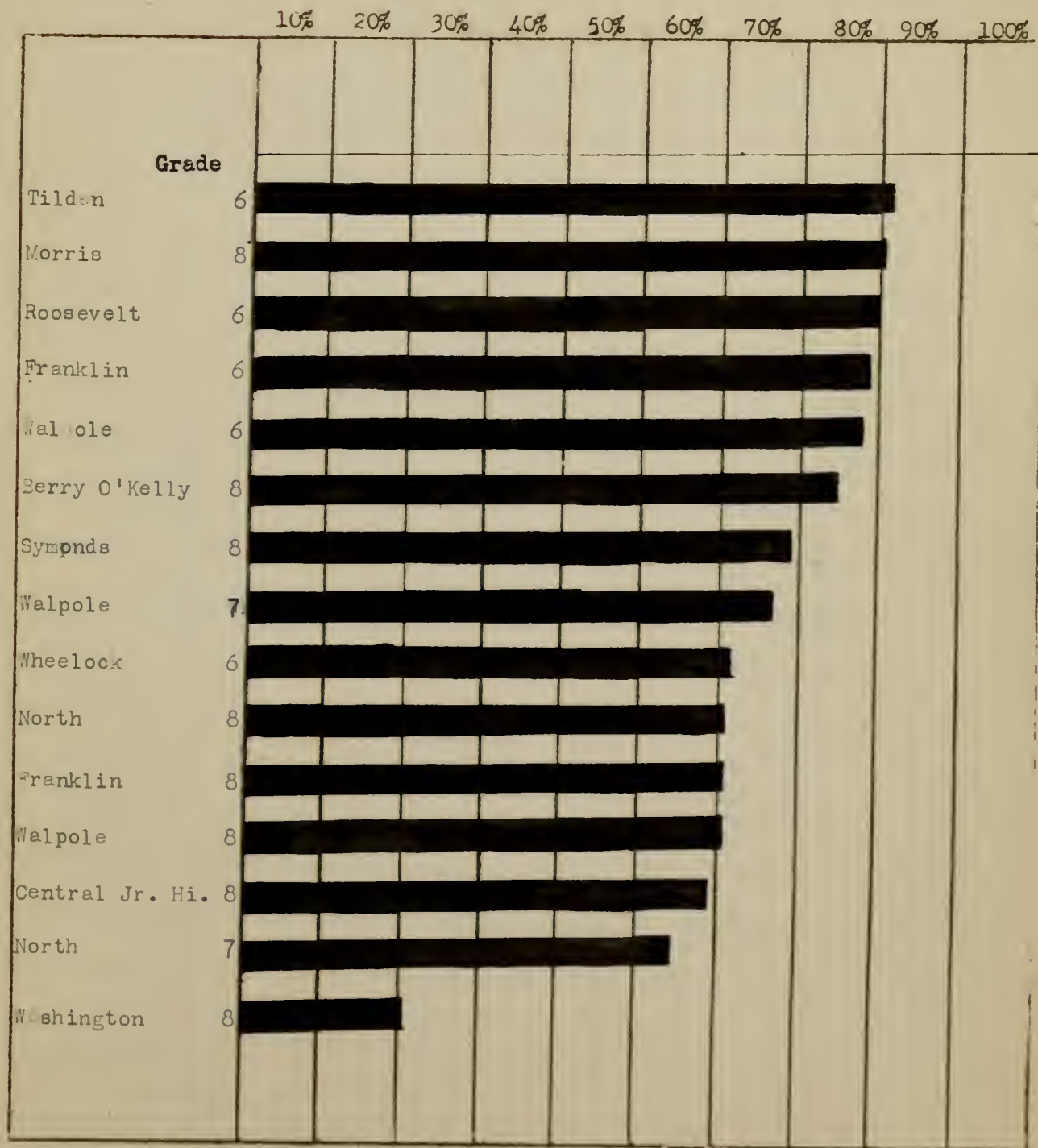


Figure 20 shows a summary of the percentages of questions correctly answered, incorrectly answered, or omitted. From Table XVI which follows it may be seen that in general this was like the profiles of the single classes in that the percentage of questions correctly answered was, the smallest for all except four.¹ In each of these instances the percentage of questions incorrectly answered was the smallest figure.

The small percentage of questions correctly answered indicates a limited knowledge of current affairs and suggests that in all probability little emphasis is placed on such knowledge in the majority of these schools since some knowledge of current affairs would be gained from the radio, the newspapers, and the newsreels. The relatively small percentage of questions incorrectly answered by the group suggests that children did not know enough to resort to much guessing. In general, questions which have incorrectly answered are those with which the children feel a small degree of familiarity or in the case of some names, suggests some one or a similar name with whom they are familiar, so they venture to guess. The relatively small amount of guessing done is further borne out by the large percentage of questions omitted since these represent questions about which the children are sure of their ignorance.

1

Central Junior High School, Keene, N. H., Grade 8
 Walpole School, Walpool, Mass., Grade 8
 Berry O'Kelly School, Method, N. C., Grade 8
 Washington School, Raleigh, N. C., Grade 8

Figure 20

Comparison of Answers (1) Correct, (2) Incorrect or (3) Omitted

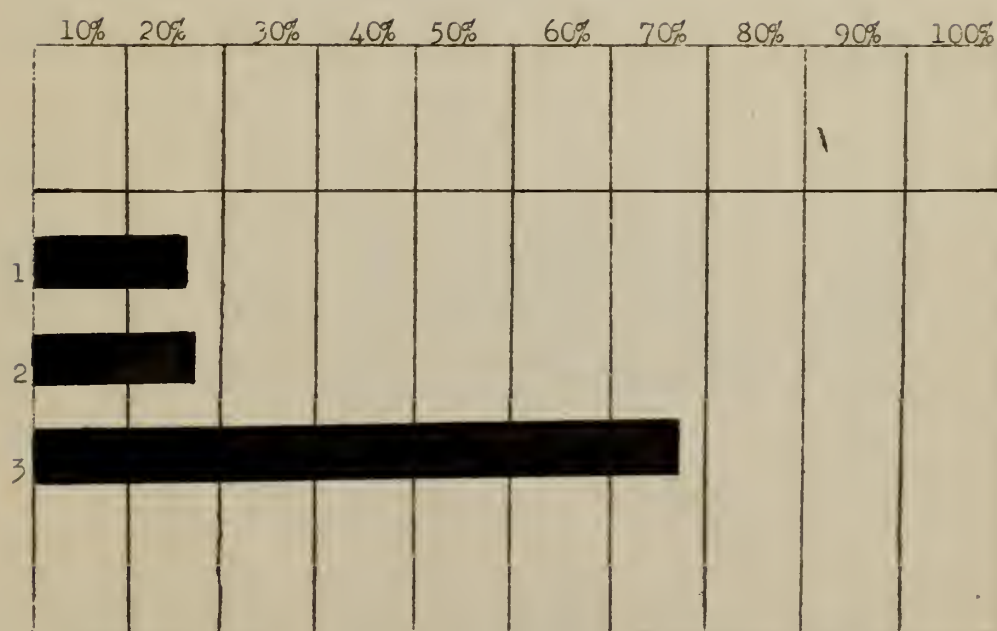


TABLE XVI
COMPARATIVE SUMMARY GROUPING

School	Grade	No. Pupils	Place	No. Questions Right	No. Questions Wrong	No. Questions Omitted
Group I						
1. Tilden	6	22	Keene, N. H.	6%	12%	82%
2. Roosevelt	6	22	Keene, N. H.	8%	12%	80%
3. Franklin	6	34	Keene, N. H.	9%	11%	80%
4. Wheelock	6	38	Keene, N. H.	14%	24%	62%
5. Franklin	8	65	Keene, N. H.	12%	26%	62%
6. Symonds	8	20	Keene, N. H.	14%	17%	79%
7. Central Jr. High	8	99	Keene, N. H.	26%	15%	59%
Mean				12%	16%	72%
Group II						
1. Walpole	6	46	Walpole, Mass.	7%	15%	78%
2. Walpole	7	28	Walpole, Mass.	11%	22%	67%
3. Walpole	8	48	Walpole, Mass.	28%	11%	61%
4. North	7	24	Bellingham, Mass.	13%	32%	55%
5. North	8	25	Bellingham, Mass.	16%	23%	61%
Mean				15%	21%	64%
Group III						
1. Washington	8	96	Raleigh, N. C.	56%	23%	21%
2. Berry O'Kelly	8	81	Method, N. C.	14%	11%	75%
3. Morris	8	15	Sumter, S. C.	9%	10%	81%
Mean				17	14	59

TABLE XVII

COMPARATIVE STUDY ACCORDING TO GRADES

School	Grade	No. Pupils	Place	No. Questions Right	No. Questions Wrong	No. Questions Omitted
1. Tilden	6	22	Keene, N. H.	6%	12%	82%
2. Walpole	6	46	Walpole, Mass.	7%	15%	78%
3. Roosevelt	6	22	Keene, N. H.	8%	12%	80%
4. Franklin	6	34	Keene, N. H.	9%	11%	80%
5. Wheelock	6	38	Keene, N. H.	14%	24%	62%
Mean				9%	15%	76%
1. Walpole	7	28	Walpole, Mass.	11%	22%	67%
2. North	7	24	Bellingham, Mass.	13%	32%	55%
Mean				12%	27%	61%
1. Franklin	8	65	Keene, N. H.	12%	26%	62%
2. Morris	8	15	Sumter, S. C.	9%	11%	81%
3. Symonds	8	26	Keene, N. H.	14%	17%	79%
4. Berry O'Kelly	8	96	Method, N. C.	14%	11%	75%
5. North	8	25	Bellingham, Mass.	16%	23%	61%
6. Central Jr. High	8	99	Keene, N. H.	26%	15%	59%
7. Walpole	8	48	Walpole, Mass.	28%	11%	61%
8. Washington	8	81	Raleigh, N. C.	56%	23%	21%
Mean				21%	17%	62%

TABLE XVIII
COMPARATIVE STUDY ACCORDING TO LOCALITY

School	Grade	No. Pupils	Place	No. Questions Right	No. Questions Wrong	No. Questions Omitted
1. Tilden	6	22	Keene, N. H.	6%	12%	82%
2. Roosevelt	6	22	Keene, N. H.	8%	12%	80%
3. Franklin	6	34	Keene, N. H.	9%	11%	80%
4. Wheelock	6	38	Keene, N. H.	14%	24%	62%
Mean				9%	15%	76%
5. Franklin	8	65	Keene, N. H.	12%	26%	62%
6. Symonds	8	20	Keene, N. H.	14%	17%	79%
7. Central Jr. High	8	99	Keene, N. H.	26%	15%	59%
Mean				12%	16%	72%
8. Walpole	6	46	Walpole, Mass.	7%	15%	78%
9. Walpole	7	28	Walpole, Mass.	11%	22%	67%
10. Walpole	8	48	Walpole, Mass.	28%	11%	61%
Mean				15%	16%	69%
11. North	7	24	Bellingham, Mass.	13%	32%	55%
12. North	8	25	Bellingham, Mass.	16%	23%	61%
Mean				15%	27%	58%
13. Berry O'Kelly	8	96	Method, N. C.	14%	11%	75%
14. Washington	8	81	Raleigh, N. C.	56%	23%	21%
Mean				35%	17%	48%
15. Morris	8	15	Sumter, S. C.	9%	10%	81%

CONCLUSIONS

In view of the interpretations of the data collected in fifteen classes of eleven schools - north and south, city and rural - the following conclusions are possible.

I. Since pupils do not know much about present day affairs, it is evident that schools are failing to achieve the aim of problem thinking in terms of present day civic and political problems.

II. Results show that there is a difference in the amount of emphasis in different schools and in different grades of the same school.

III. The difference between rural and city schools is not appreciable.

IV. It is possible to achieve the current problem thinking aim through teaching.

V. Tests to check the achievement of this aim can be teacher constructed and must be continually brought up to date.

VI. Tests constructed by teachers or groups of teachers will reveal differences in teaching efficiency.

VII. Questions relating to economic problems are most poorly answered.

VIII. Questions dealing with problems which relate to a particular section are answered better by children of that section.

APPENDIX A

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COOPERATIVE CIVIC AND GENERAL INFORMATION
TEST, 1937

Boston University

Directions: Quickly fill in answers. Answer as many as you can in 20 minutes.

A. Answer the following:

1. Who is President of the United States? _____
2. Who is the Secretary of State? (U. S.) _____
3. Name the two U. S. Senators from your state _____
4. Name, if you can, one of the senators from Virginia. _____
5. What, in round numbers, is the present total debt of the U. S.? _____

B. Give the meaning of the following expressions found in current discussions and editorials:

6. Court Packing Plan
7. Re-armament
8. Soil Conservation Program
9. Dust Bowl
10. Social Security

C. Explain:

11. A balanced budget
12. W. P. A.
13. F. V. A.
14. C. O. C.
15. C. I. O.

D. Who is:

16. Adolph Hitler

[Faint, illegible text covering the majority of the page, likely bleed-through from the reverse side.]

[A small, faint rectangular stamp or signature located in the lower right quadrant of the page.]

17. Anthony Eden
18. James Parley
19. John Lewis
20. Charles Evans Hughes

L. Five, approximately:

21. The price of cash cotton. _____
22. The tax rate in your home. _____
23. The cost of white lead per cwt. _____
24. One of the three great compromises in the making
of the U. S. Constitution was _____

25. Accumulation of savings and capital

- _____ tends to raise wages and the standard of living.
- _____ tends to depress wages and the standard of living.
- _____ has no effect on wages and the standard of living.

1. Who is President of the United States?

2. Who is Adolph Hitler?

3. Explain C. C. C.

4. Accumulation of savings and capital

_____ tend to raise wages and the standard of living.

_____ tend to depress wages and the standard of living .

_____ has no effect on wages and the standard of living.

(check one of the above)

5. Who is John L. Lewis?

6. Explain W. P. A.

7. Name two U. S. Senators from your state.

8. Who is Secretary of State? (U. S.)

9. Who is Charles Evans Hughes?

10. Who is James Farley?

11. Explain C. I. O.

12. Give the meaning of Social Security.

13. Explain T. V. A.

14. Give the meaning of the Dust Bowl.

15. Give the meaning of Soil Conservation Program

16. Name, if you can, one of the Senators from Virginia.

17. Explain a balanced budget.

18. What, in round numbers, is the present debt of the United States?

19. Give the meaning of Court Packing Plan.

20. Give the meaning of re-armament.

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21. Give approximately, the price of cash cotton.
22. Who is Anthony Eden?
23. One of the three great compromises in the making of the U. S. Constitution was
24. Give approximately, the tax rate in your home.
25. Give approximately, the cost of white lead.

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